

Impact of the Uruguay Round on agriculture



Food
and
Agriculture
Organization
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the
United
Nations

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Food and Agriculture Organization of the United Nations
Rome, 1995

This One



4WUH-083-65AS

1995 11 10 11:10

Reprinted 1995

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M 70
ISBN 92-5-103720-5

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PREFACE

The Uruguay Round marks a significant turning point in world agriculture. For the first time agriculture has featured in a major way in one of GATT's rounds of multi-lateral trade negotiations. It changes the way in which national agricultural policies will be undertaken by most countries and, though representing only a partial liberalization, its effects will be felt for years to come.

In order to assess the impact of the Uruguay Round on the markets for the principal agricultural commodities, the FAO Secretariat has modified its recent projections to the year 2000 to allow for the effects of the Uruguay Round agreements. These effects include the boost to world income deriving not only from agriculture but also concessions in other sectors as well as the reduction in agricultural tariffs, the

establishment of minimum access in some markets and the cut in export subsidies.

The resulting impact on world agricultural markets suggests a positive effect on prices and rather smaller impacts on the quantities produced, consumed and traded. Based on the pattern of agricultural imports and exports as well as the responsiveness of the agricultural sector to these price changes, the study estimates the impact on agricultural trade balances of the main regions.

The study also examines a number of special issues that are of concern to countries. These include an estimate of the loss of potential value from preferential agreements; the impact of taking a much higher (double) income assumption; the

effect of the Uruguay Round on world market price stability and the effect on tariff escalation for selected commodities.

While the study is not exhaustive it provides the basis for a number of policy conclusions for countries to consider, in particular the need to review national food policies with a view to profiting from potentially higher world food prices and to offsetting the increase in food import bills that is one of the most likely consequences for most countries.

This is the first of the Secretariat's detailed analyses of the impact of the Uruguay Round on agriculture. It is planned to extend this work to cover other agricultural commodities in the future. We would welcome comments by readers on this study.

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I. INTRODUCTION

After seven years of negotiations the Uruguay Round Multilateral Trade Negotiations were concluded on December 15, 1993. The Final Act of the Uruguay Round, signed at Marrakesh in April 1994, is wider in scope than any of its predecessors. The tariff cuts are deeper; non-tariff barriers are tackled more comprehensively; and for the first time two major sectors, services and agriculture, have been included in the negotiated agreement. While the Final Act covers agreements, decisions and declarations on a wide variety of subjects several of which will be of great

economic significance to the world economy and to the economies of the developing countries, this study focuses mainly on the impact of the Agreement on Agriculture on trade flows and prices for the main agricultural commodities.

The approach to the assessment has been to re-run FAO projections for most of the main agricultural commodities to take into account important changes in national policies that have taken place since the projections were last done¹ together with the Uruguay Round changes to be accomplished by the year 2000 (the great

bulk of developed countries and over 60 percent of the concessions of the developing countries making reduction commitments). These new projections confirm earlier conclusions that prices in international markets will be 4 to 10 percent higher and point to significant changes in trade patterns. These are analyzed in Section III of the study. Section IV of the paper considers the impact of these changes on the four developing regions. Some special issues are covered in Section V. The methodology is briefly outlined in Annex I.

II. A BRIEF REVIEW OF THE AGREEMENT ON AGRICULTURE

The implementation of the Agreement on Agriculture will start in 1995, and the reduction commitments of the developed countries should be completed within six years, i.e. by the year 2000, whereas the commitments of the developing countries should be completed within ten years, i.e. by the year 2004. The least developed countries are not required to make any reductions. The commodities included are most of the products normally considered as part of agriculture (i.e. it excludes fishery and forest products) except that it also excludes rubber, jute, sisal, abaca and coir, which were covered in the normal GATT tariff negotiations on goods.

There are three elements in the commitment on **market access**: tariffication, tariff reduction and access opportunities. Tariffication means that specific non-tariff barriers (quotas, variable levies, minimum import prices, discretionary licensing, state trading measures, voluntary restraint agreements and similar border measures) need to be abolished and converted into an equivalent tariff. Ordinary tariffs, including those resulting from tariffication, are to be reduced by an average of 36 percent (24 percent by developing countries), with a minimum rate of reduction of 15 percent for each tariff item. Special safeguard provisions

allow the imposition of additional duties when there are either import surges or particularly low prices (both compared with 1986-88 levels). Where there are no significant imports, **minimum access** equal to 3 percent of domestic consumption in 1986-88 will be established for 1995 rising to 5 percent of base year consumption at the end of the implementation period.

For **domestic support policies**, subject to reduction commitments, the total support given in 1986-88, measured by the Total Aggregate Measure of Support (Total AMS)², should be reduced by about 20 percent in developed countries (13.3 percent in developing countries). Reduction commitments refer to total levels of support and not to individual commodities. Policies which amount to a small percentage transfer value to producers (less than 5 percent of the value of production for developed countries, less than 10 percent for developing countries) are also excluded under the *de minimis* rule. Policies which meet certain criteria of decoupled support together with production restraint have been excluded. Policies which have minimal or no effect on production or trade distorting effects ("Green Box") are excluded. The list of exempted "Green Box" policies includes such policies as general services to

agriculture, food security stocks, domestic food aid, and certain decoupled payments to producers, including direct payments to production-limiting programmes, providing certain conditions are met.

As regards developing countries, which have been given **special and differential treatment** in the Agreement on Agriculture, purchases for and sales from food security stocks could be at administered prices provided that the subsidy to producers is included in the AMS. As regards domestic food aid, developing countries are allowed untargeted subsidized food distribution to meet requirements of the urban and rural poor on a regular basis. Also excluded for developing countries are investment subsidies that are generally available to agriculture and agricultural input subsidies generally available to poor farmers in these countries. Developing countries were allowed to offer ceiling bindings instead of tariffication.

Perhaps the most important provision is the commitment to reduce **export subsidies**. The volume of exports benefiting from such subsidies must be reduced by 21 percent and the expenditure on export subsidies by 36 percent. Unlike the reduction commitments in market access and domestic support, reductions in export subsidies will be

implemented on a product-specific basis. However, exporters have in certain cases been allowed to maintain a higher level of subsidized exports in the years up to 1999, by availing themselves of a special option (the higher of the subsidized levels of 1991-92 and 1986-90) from which to make reductions to the same final level by the year 2000. The Final Act also has some provisions for **prevention of circumvention** of export subsidy commitments, including *inter alia* disciplines on use of export credit and credit guarantees as well as food aid (i.e. food aid should not be tied, it should be carried out in accordance with the FAO Principles of Surplus Disposal, and it should be provided to the extent possible in fully grant form).

Finally, in addition to the special and differential provisions mentioned above, there are special provisions for developing countries contained in the *Decision on Measures Concerning the Possible Negative Effects of the Reform Programme on Least-Developed and Net Food Importing Countries*. The idea behind the Decision is that agricultural trade liberalization is likely to lead to higher world prices for food while a reduction in export subsidies will also raise the effective price paid by importers. There is also some concern that the volume of food aid, which historically has been closely linked to the level of surplus stocks, could be more limited in future as the

surplus stocks are run down. The Decision recognizes these issues and provides for some redress, via food aid, technical assistance to raise agricultural productivity and possibly short term assistance to help in financing normal commercial imports.

The Agreement on Agriculture, although rather comprehensive and going well beyond tariffs and border measures, still represents only a partial liberalization agreement. The quantitative cuts in support to agriculture are relatively small and spread over a number of years. Overall, a large degree of distortion in the world market of agricultural commodities will still remain even after the complete implementation of the reduction commitments. However, the dimensions of the commitments are still impressive. Aggregate domestic support will be cut from US\$198 billion to US\$162 billion, export subsidies will be cut from US\$21.3 billion to US\$13.8 billion. Virtually all agricultural tariffs will in future be bound, i.e. ceiling rates have been established, which adds greater security to trade.

The impact on income growth is hard to estimate as considerable liberalization has occurred in the services sector for which at present it is not possible to quantify the effects. The GATT has made a number of estimates ranging from gains of US\$109-510 billion³. The World Bank/OECD has estimated gains of around US\$213 billion⁴.

The question of the impetus to world income deriving from the Uruguay Round is of great importance in assessing the impact; for the purposes of this study the World Bank/OECD figure was taken for the main scenario while double this amount was taken for the higher income assumption. However, as the main thrust of this paper is the revised outlook for world agricultural markets in the year 2000, it must be noted that the assumed effect is well below one year's growth in world income.

Before turning to the commodity detail however, a word is in order on some of the methodological assumptions lying behind these projections. In all cases models have been developed which simultaneously determine production, consumption, imports, exports and world prices. All countries are covered. The existing "baseline" projections to the year 2000 are driven by income growth, productivity changes and demographic trends. The prices in each country are linked to world market prices by tariffs and other policy effects and natural forms of protection. For the "Uruguay Round scenario" the reduction in tariffs changes these price linkages. The modelling has been done in terms of the primary commodity (e.g. wheat) so that the tariff changes for the derived products (e.g. wheat flour) have been aggregated into an average wheat-equivalent tariff. It has usually been assumed that tariff changes will reflect

changes in the bound, ceiling, tariffs. The reduction in export subsidies has been reflected in an increase in the consumer price of the recipient country in addition to any change in world prices due to trade liberalization. For exporters that use subsidies for all their exports, a maximum has been introduced on the volume of their exports. For those exporters which only

subsidize a part of their exports, no such constraint has been modelled but it is still assumed that this will erode part of their competitiveness and hence influence the volume of their exports. Minimum access has been introduced in all cases where the model did not generate a sufficient volume of imports to meet the national commitments. The value of trade has been

calculated by multiplying the volume of trade by an estimated world average export unit value for the year 2000, which in turn was projected as the product of the index of world prices and the base year export unit value. Adjustments were made to take into account the decline in export subsidies and to some extent the loss of preferential margins.

III. IMPACT ON SELECTED AGRICULTURAL MARKETS

Overview

As previously reported, the overall growth in the production of the selected commodities is projected to decline slightly compared with the 1980s (Tables 1a to 1g). The decrease in growth rates is greatest in rice, meat other than bovine, dairy products, coffee and cocoa. By contrast some increases are envisaged for tea and bananas. The impact of the Uruguay Round is negligible on world agricultural production.

The growth rate for global consumption of the agricultural commodities covered by this study is also projected to decrease, with the exception of bananas. Allowing for population growth at 1.7 percent a year, per caput consumption is expected to decrease for dairy products, grains, beef and coffee, while per caput consumption of vegetable oils, some meat, tea, bananas, cocoa and rubber should rise. On balance, the Agreement will slightly slow consumption growth in the Low-Income, Food-Deficit Countries.

The Uruguay Round is not seen as arresting the slowdown in the growth rate of world agricultural trade, despite a positive effect on the growth in trade for rice, fats and oils and bovine meat and to a lesser

extent most of the other commodities. It is possible that the commodities not covered by this study, accounting for 41 percent of the total value of agricultural trade, will enjoy greater benefits, including cotton and some horticultural products.

For the developing countries, the import growth rate is expected to decline for cereals, the oilseed sector, dairy, some meat and tropical products. The growth rate of their bovine meat and banana imports are seen as accelerating. By contrast the exports of the developing countries are expected to expand more rapidly than in the eighties for rice, coarse grains, dairy, tea, sugar and bananas. Their slight net surplus in 1987-89 for the commodities studied is unlikely to change by 2000.

For the developed countries, the growth rates of both imports and exports are expected to weaken. In the case of imports, there is expected to be a sharp decrease in growth of virtually all the main temperate zone products but export growth is also expected to fade. Overall the developed countries would remain large net exporters of temperate zone commodities in 2000 but close to balance in the main agricultural commodities covered in this study. In all these commodities, however, some countries

will gain and others lose, while each commodity has some particular characteristics that cannot be captured in these overall summary statistics. In what follows, therefore, the detailed analysis of the revised projections to the year 2000 are described together with some observations on the impact of the Uruguay Round which, it is worth emphasizing, is usually rather small compared with all the other changes taking place between the base period and the year 2000.

Table 1a - Growth of Production of Selected Agricultural Commodities, Past and Projected

	WORLD			DEVELOPED COUNTRIES			DEVELOPING COUNTRIES		
	1978*-88*	1988*-2000 Baseline	1988*-2000 UR	1978*-88*	1988*-2000 Baseline	1988*-2000 UR	1978*-88*	1988*-2000 Baseline	1988*-2000 UR
	percent per annum								
ALL COMMODITIES	2.2	1.6	1.6	1.2	0.2	0.2	3.9	3.1	3.1
FOODSTUFFS 1/	2.3	1.6	1.6	1.2	0.3	0.2	4.1	3.2	3.2
Wheat	2.1	1.7	1.6	0.9	0.8	0.6	4.3	2.7	2.9
Rice	2.6	1.8	1.8	-0.5	0.7	0.2	2.8	1.9	1.9
Coarse Grains	0.7	1.6	1.7	0.0	0.8	0.9	2.2	2.9	2.9
Fats and Oils	3.6	2.9	3.0	2.1	1.5	1.5	5.4	4.0	4.2
Proteins	3.6	3.0	3.0	1.8	1.8	1.8	6.0	4.0	4.2
Bovine Meat	1.0	1.0	1.0	0.5	-0.2	-0.1	2.0	3.0	2.9
Pig Meat	3.7	2.2	2.1	2.0	0.1	-0.0	6.9	4.4	4.4
Ovine Meat	2.4	1.6	1.6	1.6	-0.3	-0.4	3.1	3.0	3.0
Poultry Meat	4.8	3.8	3.8	3.8	2.0	2.0	6.9	6.6	6.6
Milk	1.5	0.6	0.6	0.9	-0.4	-0.5	3.5	2.8	2.9
OTHERS	1.8	1.5	1.6	0.6	-0.1	0.0	2.4	2.3	2.3
Coffee	2.6	1.2	1.3	0.0	0.0	0.0	2.6	1.2	1.3
Cocoa	4.3	1.8	2.0	0.0	0.0	0.0	4.3	1.8	2.0
Tea	2.8	3.2	3.2	1.2	1.6	1.6	2.9	3.2	3.3
Sugar	1.6	1.6	1.7	0.9	0.7	0.8	2.1	2.1	2.3
Bananas	1.4	3.7	2.8	0.8	1.0	0.4	1.4	3.9	3.1
Natural Rubber	3.0	2.9	2.9	0.0	0.0	0.0	3.0	2.9	2.9
Bovine Hides & Skins	0.8	0.7	0.8	0.4	-0.9	-0.8	1.4	2.8	2.8

1/ including butter

Table 1b - Growth of Consumption of Selected Agricultural Commodities, Past and Projected

	WORLD				DEVELOPED COUNTRIES		DEVELOPING COUNTRIES		
	1978*-88*	1988*-2000	1988*-2000	1978*-88*	1988*-2000	1988*-2000	1978*-88*	1988*-2000	1988*-2000
		Baseline	UR		Baseline	UR		Baseline	UR
	..... percent per annum								
ALL COMMODITIES	2.4	1.6	1.6	1.3	0.1	0.1	4.1	3.1	3.1
FOODSTUFFS 1/	2.4	1.6	1.6	1.3	0.0	0.0	4.2	3.2	3.2
Wheat	2.5	1.3	1.3	0.8	0.0	0.0	4.4	2.4	2.4
Rice	2.6	1.8	1.8	0.7	0.9	0.9	2.8	1.9	1.9
Total Coarse Grains	1.4	1.3	1.3	0.6	0.0	0.1	2.9	3.0	3.0
Fats and Oils	3.8	2.7	2.8	2.7	1.5	1.5	5.4	3.9	4.0
Proteins	3.7	2.7	2.8	3.0	1.1	1.1	5.5	5.5	5.6
Bovine Meat	1.0	1.1	1.1	0.4	-0.4	-0.3	2.4	3.4	3.3
Pig Meat	3.6	2.2	2.2	1.8	0.1	0.0	6.9	4.5	4.5
Ovine Meat	2.5	1.7	1.7	1.5	-0.4	-0.4	3.3	3.0	2.9
Poultry Meat	4.8	3.8	3.8	3.9	2.0	2.0	6.6	6.3	6.4
Milk	1.6	0.5	0.5	0.9	-0.6	-0.6	3.5	2.6	2.6
OTHERS	1.9	1.5	1.6	1.1	0.7	0.7	3.6	2.4	2.7
Coffee	2.3	1.6	1.8	2.4	1.0	1.2	2.2	3.0	3.0
Cocoa	3.8	2.3	2.6	3.6	1.9	2.2	5.6	4.1	4.4
Tea	2.9	2.7	2.9	1.3	0.8	0.9	3.9	3.7	3.8
Sugar	2.1	1.5	1.7	-0.1	0.0	0.1	4.5	2.6	2.8
Bananas	1.3	2.8	2.8	1.5	2.3	2.2	-0.9	7.6	7.6
Natural Rubber	3.0	2.8	2.9	1.2	0.9	1.0	6.0	4.8	4.8
Bovine Hides & Skins	0.8	0.4	0.7	0.8	0.5	0.5	0.8	0.2	1.0

1/ including butter

Table 1c - Growth of Imports of Selected Agricultural Commodities, Past and Projected

	WORLD			DEVELOPED COUNTRIES			DEVELOPING COUNTRIES		
	1978*-88*	1988*-2000 Baseline	1988*-2000 UR	1978*-88*	1988*-2000 Baseline	1988*-2000 UR	1978*-88*	1988*-2000 Baseline	1988*-2000 UR
	percent per annum								
ALL COMMODITIES	3.1	1.3	1.5	2.3	0.4	0.6	5.5	2.8	2.9
FOODSTUFFS 1/	3.1	1.4	1.5	2.3	0.0	0.4	5.1	3.2	3.2
Wheat	3.7	0.2	0.0	3.1	-3.0	-2.4	4.2	1.9	1.3
Rice	1.9	3.2	3.8	3.8	2.3	4.0	1.3	3.5	3.7
Total Coarse Grains	1.1	0.8	1.0	-1.4	-2.0	-1.8	7.2	4.1	4.2
Fats and Oils	4.0	2.8	3.1	2.1	1.6	1.9	6.5	3.9	4.2
Proteins	3.6	1.8	1.8	2.3	-0.2	-0.5	10.5	6.6	7.0
Bovine Meat	2.1	2.1	2.5	1.9	1.3	2.0	3.1	4.5	4.4
Pig Meat	4.3	0.9	1.2	3.9	0.5	0.8	8.1	3.8	4.2
Ovine Meat	2.0	2.0	2.0	0.4	1.2	1.4	4.6	3.1	2.7
Poultry Meat	6.9	5.2	5.2	7.3	4.5	4.2	6.3	6.1	6.5
Milk	2.6	-0.3	-0.2	2.3	-1.0	-0.7	3.1	1.0	0.6
OTHERS	3.2	1.1	1.3	2.4	0.9	0.9	6.6	1.6	2.2
Coffee	2.5	1.0	1.2	2.5	0.9	1.1	1.6	1.8	2.0
Cocoa	4.5	1.3	1.6	4.6	1.2	1.6	2.8	1.4	1.6
Tea	2.6	2.1	2.3	2.2	0.7	0.8	3.3	3.6	4.0
Sugar	0.7	0.6	1.0	-0.7	-1.2	-1.3	4.0	2.2	2.8
Bananas	1.3	2.8	2.8	1.5	2.3	2.2	-0.9	7.6	7.6
Natural Rubber	2.2	1.2	1.3	0.9	0.7	0.7	6.1	2.3	2.4
Bovine Hides & Skins	4.6	0.9	1.2	3.0	1.1	1.1	8.8	0.5	1.4

1/ including butter

Table 1d - Growth of Exports of Selected Agricultural Commodities, Past and Projected

	WORLD			DEVELOPED COUNTRIES			DEVELOPING COUNTRIES		
	1978*-88*	1988*-2000	1988*-2000	1978*-88*	1988*-2000	1988*-2000	1978*-88*	1988*-2000	1988*-2000
	Baseline	Baseline	UR	Baseline	Baseline	UR	Baseline	Baseline	UR
	percent per annum								
ALL COMMODITIES	3.1	1.2	1.3	2.8	0.4	0.5	4.6	2.5	2.7
FOODSTUFFS 1/	3.1	1.2	1.3	2.8	0.5	0.6	5.1	3.3	3.7
Wheat	3.5	0.2	-0.1	3.5	0.2	-0.2	3.1	0.3	1.4
Rice	1.7	2.6	3.2	0.6	-0.2	-0.3	2.2	3.6	4.4
Total Coarse Grains	0.9	0.7	0.8	1.3	0.4	0.4	-1.4	2.8	3.5
Fats and Oils	3.6	3.0	3.2	1.3	1.2	1.3	6.5	4.4	4.9
Proteins	3.6	2.0	1.9	-0.1	-0.4	-1.0	8.0	3.4	3.7
Bovine Meat	2.1	1.3	1.8	3.3	2.0	2.6	-1.0	-1.1	-1.5
Pig Meat	5.5	0.8	1.0	5.0	0.8	0.7	8.7	0.4	2.9
Ovine Meat	1.6	1.4	1.4	1.5	1.0	1.0	2.2	3.9	3.7
Poultry Meat	6.6	5.1	5.1	5.2	3.1	3.2	13.9	10.4	10.3
Milk	2.6	-0.5	-0.4	2.5	-0.7	-0.7	6.1	6.7	8.2
OTHERS	3.2	1.3	1.4	2.8	0.0	0.1	4.3	1.9	1.9
Coffee	2.6	1.1	1.2	0.0	0.0	0.0	2.6	1.1	1.2
Cocoa	4.6	1.4	1.6	0.0	0.0	0.0	4.6	1.4	1.6
Tea	2.6	2.9	3.0	0.0	0.0	0.0	2.6	2.9	3.0
Sugar	0.7	0.6	0.8	3.6	1.1	1.3	-0.8	0.3	0.5
Bananas	1.4	3.7	2.8	0.8	1.0	0.4	1.4	3.9	3.1
Natural Rubber	2.2	1.4	1.4	0.0	0.0	0.0	2.2	1.4	1.4
Bovine Hides & Skins	4.6	1.3	1.3	2.6	-0.3	-0.2	9.8	3.8	3.7

1/ including butter

Table 1e - World: Base period 1987-89 average and Projections to the year 2000, Base-line and GATT simulation

	1987-89 BASE PERIOD				2000 BASELINE				2000 GATT SIMULATION			
	Product.	Import	Export	Consumpt.	Product.	Import	Export	Consumpt.	Product.	Import	Export	Consumpt.
..... million tonnes												
FOODS												
Total Cereals	1638.0	235.3	239.2	1689.0	2003.1	255.0	255.0	1999.0	2005.6	256.0	256.0	1999.0
Wheat	519.5	114.3	115.5	537.6	632.5	117.0	117.0	631.3	630.9	114.8	114.8	629.5
Rice	324.4	12.1	13.0	325.9	483.3	17.7	17.7	481.8	484.0	18.9	18.9	482.4
Coarse Grains	794.9	108.9	110.7	827.4	967.3	120.4	120.4	965.9	970.7	122.3	122.4	967.0
Maize	441.0	71.2	71.5	467.0	589.6	80.1	80.1	589.1	592.6	82.3	82.3	590.1
Millet and Sorghum	81.9	9.3	9.6	96.7	108.7	10.5	10.5	108.7	109.3	9.6	9.6	109.3
Other Coarse Grains	261.3	28.4	29.5	269.0	269.2	29.8	29.8	269.0	269.0	30.6	30.5	268.5
Fats and Oils	76.5	16.8	16.2	77.7	107.5	17.2	17.2	107.3	108.6	18.5	18.5	108.3
Oilseeds	50.2	24.9	24.5	51.4	71.2	30.9	30.9	71.1	71.7	30.8	30.8	71.4
Total Meat	164.2	13.9	14.7	163.3	213.3	18.4	16.4	213.3	212.0	19.0	19.0	212.0
Bovine Meat	52.6	5.9	6.5	51.9	59.0	7.6	7.6	59.0	59.1	8.0	8.0	59.1
Sheep and Goat Meat	9.0	1.1	1.2	9.9	10.9	1.6	1.6	10.9	10.9	1.4	1.4	10.9
Pig Meat	65.9	4.5	6.4	65.4	85.4	5.1	5.1	85.4	84.8	5.3	5.3	84.8
Poultry Meat	26.9	2.4	2.4	30.9	38.0	4.4	4.4	38.0	38.0	4.4	4.4	38.0
Milk	522.6	55.9	57.5	527.2	558.9	54.2	54.3	558.9	559.3	54.6	54.5	559.3
Butter	7.5	1.7	1.7	8.0	7.8	1.8	1.8	7.8	7.7	1.8	1.4	7.8
OTHER COMMODITIES												
Coffee	6.1	4.3	6.3	5.7	7.0	6.9	5.0	7.0	7.1	5.0	5.0	7.1
Cocoa	2.2	2.0	2.0	2.1	2.8	2.4	2.4	2.7	2.8	2.4	2.4	2.8
Tea	1.0	1.0	0.9	1.0	2.4	1.2	1.3	2.5	2.7	1.3	1.3	2.6
Bananas	8.1	7.0	8.1	7.0	12.6	10.9	12.4	10.9	11.3	10.9	11.3	10.9
Sugar	105.0	25.4	26.4	105.0	127.3	27.5	28.4	124.8	129.0	28.6	28.1	126.9
Bovine Hides and Skins	5.2	4.4	4.4	5.1	5.8	4.9	5.1	5.4	5.7	5.0	5.1	5.6
Rubber	5.1	4.2	4.1	5.1	7.1	4.8	4.9	7.1	7.2	4.9	4.9	7.2

Table 1f - Developing countries: Base period 1987-89 average and Projections to the year 2000, Base-line and GATT simulation

	1987-89 BASE PERIOD				2000 BASELINE				2000 GATT SIMULATION			
	Product.	Import	Export	Consumpt.	Product.	Import	Export	Consumpt.	Product.	Import	Export	Consumpt.
	..... million tonnes											
FOODS												
Total Cereals	813.8	119.1	30.3	908.8	1093.2	167.3	40.8	1215.1	1099.8	163.8	44.3	1313.9
Wheat	216.3	68.6	6.5	280.8	298.3	86.1	8.8	374.3	303.4	80.5	10.0	372.7
Rice	306.8	9.1	9.0	306.7	384.0	13.8	13.8	392.6	385.7	14.3	15.0	391.3
Coarse Grains	290.5	41.4	12.8	321.3	409.8	67.4	18.0	458.2	410.7	64.1	19.3	456.0
Maize	189.7	26.5	9.6	206.2	284.9	46.5	13.5	317.0	286.8	47.9	14.5	317.0
Millet and Sorghum	60.9	3.5	3.1	72.2	81.1	6.5	2.9	84.7	81.6	5.6	3.7	84.5
Other Coarse Grains	33.2	11.4	1.2	42.9	43.9	14.4	1.6	56.5	44.2	14.7	2.1	56.4
Fats and Oils	38.8	12.8	13.1	38.2	62.3	20.1	22.1	60.3	63.3	20.9	23.3	60.9
Oilseeds	24.1	5.5	13.8	15.8	38.8	11.9	20.7	30.0	39.4	12.5	21.6	30.5
Total Meat	63.2	3.2	1.6	62.8	106.6	5.7	2.8	109.4	106.3	5.8	4.0	108.2
Bovine Meat	17.9	1.3	1.5	17.6	25.4	2.2	1.2	26.2	25.2	2.1	1.3	26.1
Sheep and Goat Meat	4.9	0.8	0.1	5.2	7.0	0.4	0.2	7.4	7.0	0.4	0.2	7.4
Pig Meat	27.7	0.5	0.6	27.8	46.8	0.8	0.6	46.7	46.6	0.9	0.9	46.6
Poultry Meat	12.9	1.0	0.5	13.4	27.6	2.1	1.8	30.0	37.6	2.2	1.6	38.1
Milk	141.1	20.3	1.1	160.2	197.5	12.4	2.5	217.8	197.9	11.9	2.9	216.8
Butter	1.8	0.4	0.0	2.2	2.7	0.8	0.2	2.1	2.4	0.7	0.2	3.1
OTHER COMMODITIES												
Coffee	6.1	0.3	4.3	1.7	7.0	0.4	5.0	2.4	7.1	0.4	5.0	2.4
Cocoa	2.3	0.1	2.0	0.3	2.8	0.1	2.4	0.5	2.8	0.1	2.4	0.5
Tea	1.7	0.4	8.9	1.2	3.5	0.6	1.2	1.8	2.5	0.7	1.3	1.8
Bananas	7.3	0.6	7.3	0.6	11.5	1.4	12.5	1.4	10.5	1.4	10.5	1.4
Sugar	81.8	12.8	16.9	58.3	79.8	16.6	17.5	79.0	80.9	17.0	17.9	81.0
Bovine Hides and Skins	2.0	1.8	1.5	1.9	2.8	1.5	2.3	2.0	2.8	1.7	2.3	2.5
Rubber	5.1	1.3	4.1	2.2	7.1	1.7	4.9	3.9	7.2	1.7	4.9	5.0

Table 1g - Developed countries: Base period 1987-89 average and Projections to the year 2000, Base-line and GATT simulation

	1987-89 BASE PERIOD				2000 BASELINE				2000 GATT SIMULATION			
	Product.	Import	Export	Consumpt.	Product.	Import	Export	Consumpt.	Product.	Import	Export	Consumpt.
	million tonnes											
FOODS												
Total Cereals	825.0	116.2	208.9	780.2	910.9	88.5	215.5	797.9	905.8	97.2	211.7	795.0
Wheat	303.2	49.8	107.0	254.9	334.2	71.7	109.0	257.0	327.4	34.3	104.8	259.8
Rice	17.8	2.9	4.0	17.2	19.3	3.9	7.9	19.2	19.3	4.7	3.9	19.2
Coarse Grains	504.0	63.5	97.9	509.1	567.4	13.9	102.4	505.7	566.0	54.2	107.1	509.9
Maize	252.0	44.9	92.0	201.9	204.9	33.5	99.9	271.1	207.6	34.4	67.8	273.1
Millet and Sorghum	22.9	9.8	7.5	24.5	27.9	4.0	7.6	24.0	27.7	4.0	9.9	24.7
Other Coarse Grains	229.0	17.1	28.4	220.1	229.2	19.5	28.2	212.9	224.8	19.8	28.4	212.0
Fats and Oils	37.7	14.1	17.1	39.5	45.2	17.1	19.1	47.0	45.2	17.6	15.2	47.4
Oilseeds	26.0	19.4	10.7	35.8	32.3	19.0	10.2	41.0	32.3	18.9	9.5	41.1
Total Meat	100.9	10.6	11.9	99.5	104.7	12.7	14.6	104.8	104.4	13.2	15.0	104.6
Bovine Meat	34.5	4.6	4.9	34.3	33.6	5.4	6.3	32.7	34.0	5.9	6.7	33.1
Sheep and Goat Meat	4.1	0.6	1.0	3.7	3.9	0.7	1.1	7.9	3.9	0.7	1.1	3.9
Pig Meat	38.2	4.0	4.0	38.0	38.8	4.2	4.5	38.9	38.7	4.4	4.4	39.2
Poultry Meat	24.1	1.3	1.9	23.3	30.4	2.3	2.7	70.0	70.4	2.2	2.8	29.8
Milk	781.5	35.6	56.4	397.0	761.4	71.4	51.8	341.1	341.4	32.7	51.9	742.5
Butter	5.7	1.2	1.7	5.9	9.1	1.0	1.4	4.7	9.1	1.0	1.4	4.7
OTHER COMMODITIES												
Coffee	0.0	4.1	0.0	4.0	0.0	4.5	0.0	4.5	0.0	4.9	0.0	4.6
Cocoa	0.0	1.9	0.0	1.8	0.0	2.3	0.0	2.3	0.0	2.7	0.0	2.7
Tea	0.1	0.6	0.0	0.3	0.1	0.6	0.0	0.7	0.1	0.6	0.0	0.7
Bananas	0.7	7.2	0.7	7.2	0.8	9.5	0.8	9.5	0.8	9.6	0.8	9.4
Sugar	43.8	12.6	9.5	47.5	47.5	10.9	11.0	47.8	48.1	10.9	11.2	49.0
Bovine Hides and Skins	3.2	2.9	2.9	7.2	2.9	7.4	2.9	3.4	2.9	7.4	2.9	3.4
Rubber	0.0	2.9	0.0	2.9	0.0	7.2	0.0	3.2	0.0	7.2	0.0	3.2

Wheat

Production. Global wheat production is projected to increase by 1.6 percent annually during the 1990s, reaching 631 million tonnes by the year 2000, compared with a volume of 520 million tonnes during the base period (1987-89). However, these projection results indicate somewhat slower growth in production than would have been the case without the Uruguay Round. The global output of wheat is expected to shrink by 2 million tonnes due to the Uruguay Round, which is the net result of an almost 7 million tonne decline in the developed countries and a 5 million tonne gain in the developing countries.

The growth expected among the developing countries largely stems from yield advances, but higher relative wheat prices are also assumed to improve production incentives in many developing countries. In particular, some 80 percent of the increase in the wheat output due to the Uruguay Round is likely to be accounted for by four countries: Argentina, China, India and Pakistan. The gains for Argentina are driven primarily by export demand as other major wheat exporters are expected to reduce their production and cut subsidized exports. The significant gains in outputs for China, India and Pakistan are largely explained by increased producer prices.

At the same time, restrictions on production support and limits on export subsidies under the Uruguay Round are forecast to reduce the output in most developed countries, in particular in the member countries of the EC and the United States, compared to the base projections. By comparison, output will expand in Australia due to higher prices. Wheat production could also increase by over half a million tonnes in the area of the former USSR. One expected result of the Uruguay Round, therefore, is a partial shift in grain production away from some traditional developed producing countries toward developing countries with the overall net effect of somewhat smaller global wheat output in 2000.

Demand. In both projection scenarios, i.e. with and without the impact of the Uruguay Round, wheat consumption is forecast to grow less during the 1990s compared to the previous decade. Rising real wheat prices, assumed to result from the Uruguay Round, are likely to have an additional dampening effect compared to the baseline projection which showed falling real prices. As a result of the Uruguay Round, aggregate utilization of wheat at the global level is expected to shrink by about 2 million tonnes to 630 million tonnes, most of it occurring in the developing countries, largely in the Far East and Latin America. These reductions in

consumption are mainly due to widespread increases in domestic prices of wheat. Most of the slowdown is expected in feed use as wheat is expected to become more expensive compared to alternative grains. The growth in the demand for feed use of wheat is also likely to diminish in those countries which have heavily subsidized such use in the past but are not likely to do so during the 1990s, in particular in the area of the former USSR and eastern Europe. By contrast, utilization of wheat as feed is likely to expand in the developed countries, mainly in North America, Oceania and the Republic of South Africa. Growth in food consumption of wheat is also forecast to slow under the Uruguay Round. Although per caput food consumption should continue to increase in the developing countries of Africa under the Uruguay Round, it may show little or no change among other developing regions and the developed countries compared to the baseline projections.

The projection results suggest that income gains due to the Uruguay Round may not be adequate to offset the dampening effects of higher prices on the demand for wheat. In the case of the Far East, for example, lower wheat use is associated with increased consumption of rice, whose domestic price is projected to rise on average by less than one percent compared to almost 4 percent for wheat.

Prices. FAO's World Food Model (WFM) shows that the implementation of the Uruguay Round is projected to raise international wheat prices by 7 percent in real terms by the year 2000, compared with a scenario without the Round when prices would have fallen by 3 percent (Table 2). The impact of the Uruguay Round on wheat prices is more than for most other grains due in part to the greater degree of subsidization of wheat in the past. Regional price changes resulting from the Uruguay Round scenario show that the average domestic prices of wheat are expected to be highest in Latin America, the Far East and Oceania, whereas they would be lower for western Europe and North America, where subsidies were the highest. On the other hand, prices of grains are not likely to change much in the Near East, Africa, eastern Europe and the area of the former USSR.

Trade. The projections of production and consumption for world wheat trade point to slower growth during the 1990s, compared to the previous decade. Global wheat trade by the year 2000 is projected to show little change from the average base period (1987-89) volume of 114 million tonnes. However, this volume would still be considerably above the current annual range of 92-94 million tonnes to which trade had fallen in recent years. The greatest effects are expected for the developed countries, in

particular the EC, where, following CAP reform, feed demand is expected to increase, thus reducing export availabilities. In the area of the former USSR and eastern Europe, feed use is likely to be reduced sharply, and thus imports, due to lower livestock numbers.

The effect of the Uruguay Round on trade is likely to be a lower volume of wheat imports of about 3 million tonnes when compared the baseline projections. In particular, some countries of Asia and Latin America are likely to produce more grains for their own requirements, leading to a slow-down of growth in their import demand for wheat. Most of the projected reduction in imports is likely to occur in four developing countries, i.e. Brazil, China, India and Pakistan, mainly due to gains in production. On the other hand, most of the projected rise in imports is likely to be accounted for by the EC, Poland and the Republic of South Africa. Furthermore, the increase in the minimum access volume for wheat by the end of the implementation period amounts to some 300 000 tonnes over the initial quota, or 2 percent, with most of the reported increases scheduled for Canada, Hungary and Japan.

Given the increase in prices assumed under the Uruguay Round, the value of the wheat trade would increase by just under US\$ 700 million compared to a projection without the Uruguay Round, despite a rather

stable trade volume. The bulk of higher import costs would fall on the developed countries whose import value is likely to increase by just over US\$ 700 million. The largest share of the higher import bills is predicted for the EC and South Africa. By contrast, the financial burden of importing wheat could diminish slightly under the Uruguay Round for the developing countries in aggregate since their volume of imports are projected to decline sufficiently to offset the higher prices. By far, the most substantial decline in the import costs of wheat should be in the Far East where production gains and restrained demand should contribute to smaller import requirements. Nevertheless, all other developing regions are expected to face higher import expenditures due to the Uruguay Round, in particular, Africa and the Near East.

Among the major exporters of wheat, shipments are projected to fall markedly from both the EC and the United States (by about 3 million tonnes each), while those from Australia and Argentina would expand. While the commitments to reduce domestic support programmes are not commodity specific, and therefore were not explicitly accounted for in the projections, the commitments to reduce subsidized wheat exports are substantial, amounting to some 19 million tonnes by the end of the implementation period. Total subsidized

**Table 2 - Change in international food prices between 1987-89
and by the year 2000**

	Base Run	Uruguay Round Effect	Total *
	..... percent		
Wheat	-3	+7	+4
Rice	+7	+7	+15
Maize	+3	+4	+7
Millet/Sorghum	+6	+4	+10
Other Grains	-3	+7	+5
Fats and Oils	-4	+4	0
Oilmeal Proteins	+3	0	+3
Bovine Meat	+6	+8	+14
Pigmeat	+3	+10	+13
Sheep Meat	+13	+10	+24
Poultry	+5	+8	+14
Milk	+32	+7	+41

* Total does not necessarily equal the sum of the two effects

wheat exports are scheduled to fall from 59 million tonnes in the initial year to 40 million tonnes by 2004 (a drop of 32 percent). Some three-quarters of the volume reductions are accounted for by the three largest exporters, the EC-12 (5.7 million tonnes), the United States (5.7 million tonnes) and Canada (4.7 million tonnes). Other countries making significant subsidy reduction commitments on wheat are Austria, Hungary, the Nordic countries, South Africa and Turkey and, therefore, are also likely to reduce their export volumes in general.

Conclusions. The overall impact of the Uruguay Round agreement on global production, utilization and trade of wheat in the year 2000 should be fairly modest, although some significant effects are expected in terms of shifts in the location of

production, the direction of trade flows and the share in trade volumes. The Uruguay Round projections confirm widely held expectations that wheat production and exports would shift away from countries with high production support and export subsidies towards less-subsidizing producers, including net importing countries. At the same time, smaller export subsidies could lead to increased international wheat prices, which would contribute to dampening demand.

The impact on trade resulting from the Uruguay Round depends to a large extent on the level of export subsidies that are scheduled to be reduced. The smaller trade subsidies are expected to raise international wheat prices which should stimulate production in some countries and, at the same time, dampen domestic demand, thus reducing overall global wheat imports. The degree to which the higher international

prices are transmitted to domestic markets, however, will depend on the actual level of tariffs, which could be at or below the bound rates. In the case of wheat, the full effects of the higher world prices are not expected to be felt in many countries because tariffs will still be high. In addition, the relatively small minimum access commitments for wheat are not likely to offset the effects of the higher prices on imports.

The impact of the Uruguay Round on world wheat trade is attenuated by the fact that a number of the major importing countries are not members of the WTO. This group of countries account for some 22 million tonnes, or 22 percent, of recent world imports. These countries, while not contributing to the change in market conditions, are affected by it and it may be expected that several of these will eventually join the WTO.

Table 3: WHEAT - Commodity Balances, 1987-89 Average, 2000 Baseline and 2000 Uruguay Round Scenarios

Countries/Regions	1987-89 Average				2000 Baseline				2000 Uruguay Round				Growth Rates: 1987-89 to 2000 UR			
	Prod.	Import	Export	Cons.	Prod.	Import	Export	Cons.	Prod.	Import	Export	Cons.	Prod.	Import	Export	Cons.
	Thousand tonnes												percent per year			
WORLD TOTAL	514507	114335	115505	527424	632671	117702	117702	632308	630888	114799	114782	628622	1.4	0.0	-0.1	2.2
DEVELOPING COUNTRIES	214210	88554	8691	280849	288361	84131	8810	174301	181466	80513	9274	137214	2.0	1.2	1.4	2.4
Africa	4468	11050	142	14883	9450	25104	154	24381	9132	35213	187	34278	2.9	2.7	0.2	2.0
Algeria	880	4158	0	4870	995	5753	0	8724	1014	5703	0	6408	1.2	1.7	-	2.7
Ethiopia	828	487	0	1360	1238	1164	0	2485	1349	1140	0	2471	4.0	4.3	-	3.9
Morocco	2443	1472	1	4520	4440	1050	1	6041	4320	1804	1	6100	1.9	1.2	0.0	2.5
Nigeria	47	325	0	372	185	371	0	544	166	360	0	655	12.4	0.9	-	2.4
Latin America	22074	8742	4368	26460	22186	16428	6811	23027	23342	15710	4342	22622	0.4	6.0	3.2	1.8
Argentina	8153	0	4101	5050	10495	0	5247	5882	11478	0	5934	5533	1.9	-	3.1	0.8
Brazil	5774	1475	8	7140	2988	6124	8	9298	3248	5483	4	8862	-4.6	16.7	0.0	1.8
Mexico	4152	709	170	5020	4473	1470	169	4457	4645	1710	170	4373	1.3	3.4	0.0	2.0
Peru	147	863	0	1008	578	3312	0	1468	378	1304	0	1481	3.7	1.5	-	2.5
Venezuela	0	1063	1	1120	0	1454	1	1456	0	1444	1	1441	-	2.8	0.8	2.1
Near East	34384	10750	3243	64799	54361	19582	2342	71288	55042	18943	2737	71024	3.4	-0.2	-1.5	2.2
Egypt	2414	6941	2	8883	4782	5003	3	11743	6194	4754	1	11440	7.4	-3.1	0.0	1.4
Iran Isl. Rep. of	4797	5522	1	10528	11868	1858	1	13559	11576	1885	1	13457	4.4	-4.0	0.0	2.1
Saudi Arabia	2015	310	1842	1864	1441	190	1051	2779	3501	390	1114	2755	1.3	1.4	-4.1	3.4
Syria	1481	1072	20	2404	4154	97	20	4198	4187	54	31	4151	8.4	-22.0	4.3	4.0
Turkey	14559	806	1335	19215	22395	863	1223	22028	22608	892	1425	21929	3.7	0.8	1.1	1.1
Far East	151442	20783	704	162242	212333	14511	700	245248	215654	20288	714	244492	3.0	0.4	0.2	2.6
Bangladesh	1054	1988	0	3052	1458	3397	0	4770	1472	3221	0	4752	2.4	4.2	-	3.0
China	87383	15427	86	104141	121830	11350	84	132472	122470	10573	24	132487	2.0	-3.1	-9.5	2.1
India	46201	8794	194	55042	48142	2057	184	49874	49549	14	171	46209	3.1	-22.1	4.2	2.7
Indonesia	0	3720	0	4	0	3194	0	4	0	3011	4	4	4	4	4	4.8
Korea Rep.	2	3508	23	3488	3	4915	23	4883	3	5010	23	4971	3.4	1.0	0.0	3.0
Pakistan	13037	1050	4	13870	14217	1914	4	21417	19112	1924	4	21139	2.3	4.2	0.0	1.4
Philippines	0	1044	5	1043	0	1844	5	1823	0	1811	5	1795	-	6.5	0.0	4.5
Thailand	0	245	51	244	0	512	51	455	0	588	52	520	-	5.9	0.2	6.5
Other Developing	8	231	2	214	1	262	3	297	1	392	3	287	-	2.3	0.0	2.8
DEVELOPED COUNTRIES	282193	45781	107816	254781	224171	21441	108842	347001	327644	34287	104804	258898	0.4	-2.4	-0.2	0.0
North America	142220	945	48144	33464	98097	1172	40582	38884	88841	1176	57400	28892	2.8	1.1	0.2	1.3
Canada	27188	134	10259	4453	26077	157	14815	7293	28373	147	19179	7117	1.5	1.2	0.4	1.0
United States	94037	819	37887	21191	72020	1615	41441	31133	89244	1919	38463	31970	3.1	1.4	0.1	1.3
Western Europe	62049	17048	31112	65844	74878	18194	27809	69423	74448	19787	25087	44384	-0.6	1.2	-2.2	0.8
EC-12	70530	14048	31040	62045	74451	17161	24505	65795	71114	14848	24255	45705	-0.9	1.4	-2.7	0.5
Other Western Europe	4400	1021	1244	3795	4137	834	2304	3728	3584	938	833	3444	-1.1	-0.3	-1.4	-0.2
Eastern Europe	34391	1021	2415	18882	41502	1137	5425	27255	40234	2032	5405	38830	0.2	-3.2	4.4	-0.4
Poland	7935	2153	2	9893	9893	493	3	10374	8814	1349	3	10175	8.0	-3.4	0.0	8.2
Romania	7484	22	200	8794	6940	20	458	6306	4763	20	555	8185	-0.8	-0.8	9.5	-0.7
Former USSR	88889	18044	1541	104589	83986	3428	1983	90244	94832	2717	1541	68108	0.7	-14.6	0.0	-0.7
Ghana	13705	143	13431	3678	17314	251	17122	4422	18788	388	14463	4515	2.7	8.4	1.1	1.3
Australia	13475	39	12415	3996	17112	38	17114	4054	19411	34	14467	4144	2.7	1.8	1.1	1.1
Other Developed	4098	4524	803	9630	4424	7130	425	11097	2440	8308	434	11272	-1.8	2.0	-5.4	1.1
Japan	537	5448	397	4317	1378	5533	394	6510	1374	5546	395	8528	1.1	-0.2	0.0	0.4
South Africa	2904	20	494	2838	2804	140	25	3512	1851	1904	25	3477	-3.7	44.2	-22.0	2.8

Rice

Production. Global output of rice (milled equivalent) is projected to grow at 1.8 percent per annum to reach 404 million tonnes in 2000, a rate of growth and a level of production which is only marginally different from the baseline projections before taking into account the outcome of the Uruguay Round. The future expansion in rice production will hinge on improvements in yields and advances in plant technology. The area under rice is projected to increase only slightly, and mainly in Africa where land is more widely available and where large tracts of upland and swampland could be brought under cultivation. In both the Far East and the Near East, the possibilities for increasing the area under rice are minimal. In Latin America the rate of expansion in rice plantings is expected to slow-down due to the high production costs. In the United States, an increase in total output is likely to occur, largely from improvements in yields due to advances in plant technology.

While at the global level production is not expected to change notably due to the Uruguay Round, moderate changes would occur in some countries. Production of rice in some developing Far Eastern countries is projected to rise marginally as a result of the Round, but output in developed countries, especially Japan and the EC is likely to be significantly smaller. Japan's opening of its

market is expected to stimulate exporting countries to raise production to meet the additional demand generated by Japan's commitment to buy rice in the international market.

Demand. The impact of the Round on rice demand is expected to be even less pronounced than on output. Between 1987-89 and 2000, world demand for milled rice is projected to increase at 1.8 percent annually to reach 402 million tonnes in 2000, a rate of growth and a level of consumption similar to that projected before the effects of the Round were considered. Per caput food consumption of rice during the period is likely to grow at a negligible rate, globally gaining just one kilogramme for the entire decade to reach 58 kilogrammes per head. In the EC and Japan, consumption of rice is unlikely to change significantly, the reduction in domestic output being compensated by increased imports of rice. Likewise, consumer prices for rice will probably be affected little by the introduction of market access. In Japan, for example, the current import mark-up of 292 yen per kilo of rice (US\$2 016.26/tonne) if maintained, will keep consumer prices the highest in the world.

Trade. The effect of the Uruguay Round on trade, by contrast, would be substantially more pronounced than for production and

consumption, both in terms of its impact on the volume of transactions and on international market prices. Vital to these projected developments, is the assumption of full implementation of the minimum access provisions agreed to at the Round. Under this assumption, world rice imports would increase by 3.8 percent annually, a substantially faster rate of growth than in the previous decade, to reach 18.9 million tonnes in 2000. This would be slightly over one million tonnes more than what could be achieved without the Agreement, and 6.8 million tonnes higher than in the base period.

The impact of the Round on world imports, although substantial, is expected to be highly localised. The impact of the Agreement on imports of Africa, the Near East and Latin America and the Caribbean is expected to be insignificant. Imports into Africa are forecast to rise by 3.3 percent annually to 3.8 million tonnes, which would be 1.2 million tonnes more than in 1987-89, but only marginally higher than the present day level. Although output of rice in Africa is projected to increase by over 4 percent per annum, demand for rice would rise at an almost equal pace. As a result, it is likely to continue to rely on imports to meet over 30 percent of its total demand irrespective of the effects of the Round. Likewise, imports into the Near East, projected to rise by 4.8 percent per annum, would reach 4.3 million

tonnes. The Near East's relatively rapid growth as a major importing region would not be so much the result of the Uruguay Round, than of the demand of its immigrant Asian work force and the limited possibilities for raising production to keep pace with consumption growth. Latin America's imports would increase, to account for nearly 10 percent of the world market largely because of production constraints not connected with the Uruguay Round.

In the Far East, however, the Round is expected to have a more noticeable impact. Imports into the developing countries of the region could expand at a much faster rate than without the Uruguay Round, reaching 3.9 million tonnes, and reversing the decline of the previous decade. This projected acceleration, however, will only materialise if the Republic of Korea, Indonesia and Thailand buy the entire amount of rice stipulated under the minimum access provisions. By 2000, the Republic of Korea, which has opted to defer tariffication, would be importing about 2 percent of its consumption requirements in the base year. Thailand has agreed to allow 245 000 tonnes of rice imports in 2000, subject to a 30 percent import duty and Indonesia has subjected its minimum access of 70 000 tonnes to a 90 percent import duty. Whether these tariffs will be low enough to allow the volume of imports indicated is uncertain. Amongst the Far Eastern

importing countries, however, the biggest concession comes from Japan which is expected to import 758 000 tonnes of rice by 2000.

The imports of the European Community are also expected to be affected substantially by the Uruguay Round. Although total gross imports into the EC may not change very much, the large reduction in its tariff on rice imports from third countries, and more important, the "ceiling duty-paid import price" established for rice, are likely to enable third country exporters to raise their market share in the EC trade.

The export trade in rice by the year 2000 will undergo significant structural changes, especially in the Far East. Many of these changes are, however, not related to the Round. For example, Bangladesh, largely self-sufficient in rice in recent years, is expected to become a small exporter because of higher production. Indonesia, an occasional exporter in the past years, could be exporting small quantities more regularly. Viet Nam's exports are projected to reach 2.6 million tonnes, displacing the United States as the world's second largest exporter. Pakistan's exports would fluctuate around present day levels because competition for land-use by other crops would limit increases in its output of rice. China, an exporter in the base period would emerge as a substantial net importer, as its exports are projected to decline significantly from recent

levels. Exports from Myanmar are likely to increase significantly because of a likely expansion in output. For these countries, differences between the rates of growth projected before and after the Round are small.

However, some important changes will result from the Round. Thailand, currently the world's largest rice exporter, is projected to maintain its dominance in the world market with export volumes reaching 6.8 million tonnes; at least some 0.5 million tonnes of the projected trade being linked to the Uruguay Round stimulated opening of the market for rice in the Far East. China's decline in exports would not be a result of the Round, but the direction of its future export trade would be affected. With domestic prices for rice likely to escalate over the next few years, China, which exported mainly to Africa in the past, may concentrate principally on selling small quantities of Japonica rice to Japan where the high prices offered could prove sufficiently remunerative. Among the Asian exporting countries, India may be the most affected by the Round. Over the next few years, India's exports are projected to expand substantially, benefiting especially from changes in the Uruguay Round induced EC regulations on rice imports from third countries and especially because Basmati rice from India will be allowed to enter the EC at a reduced rate of import duty.

Outside of Asia, important changes may also occur to export trade. During the five year period 1995-2000, the relative competitiveness of the United States and the EC rice exports may change because of their different schedules of commitments for reducing export subsidies brought about by the use of different base years. For the major part of the period 1995 - 2000, the United States export subsidies on rice could well exceed that of 1986-88 whereas in the case of the EC a definite decline from those years is scheduled. Partly reflecting this, rice exports from the EC are projected to fall in contrast to the moderate projected increase in the baseline scenario. Exports from the United States, however, are likely to be virtually unaffected by the Round.

The opening of the rice market following the Round and the stronger growth in import demand relative to export supplies are expected to boost international rice prices. In real terms, prices are likely to increase by some 15 percent over the base period, compared to a 7 percent rise in the baseline projections without the Uruguay Round effect. The increase in international rice prices and in the volume of trade is likely to boost the value of global rice trade by 15 percent above what it would be without the Round and 80 percent higher than in 1988.

Conclusions. The Agreements reached at the Uruguay Round could have significant implications for world rice trade. By 2000, global rice trade may be boosted by some 6.8 million tonnes (50 percent) from the base period, while international rice prices in real terms may experience a 15 percent rise from 1988. At least 17 percent of the increase in the volume of trade and about 50 percent of the rise in prices may be attributed to the Round. Such a large impact on trade, however, hinges critically on countries importing the full amount under their minimum access provisions, as the international rice market will not be significantly affected by reductions in tariffs. In most countries, import duties on rice will remain very high by 2000 and, hence, continue to constrain the expansion of trade.

A rise in the volume of shipments and prices will increase the value of rice trade and boost export earnings, especially of the developing countries. For the latter, export earnings from rice are projected to be lifted by over 90 percent from the base year, 17 percent more than if the Round had not been concluded. These large increases by the year 2000, would mean that amongst food grain commodities rice will continue to rank as the most important source of foreign exchange earnings for developing countries.

At a projected US\$ 5.1 billion, rice export earnings of developing countries will be 3.4 times their earnings from wheat exports; 2.7 times those from maize and nearly 16 times those from millet and sorghum.

At the same time, importers would be confronted with a larger import bill. The bulk of such increase in expenditures, however, would be borne by developed countries, where most of the increase in the volume of imports would occur.

The impact of the Round on production, by contrast, is not expected to be large in the next few years. This is because no major changes in domestic support to rice are expected to result from the Round at the global level, because the political and economic importance of rice as well as its role as a staple food would help ensure continued support to its production. Any significant changes in production support in the future would more likely be on account of Structural Adjustment Programmes embarked upon by countries and/or of the rapid expansion of industrialization pursued by some countries, both tending to result in a contraction in the support to agriculture.

Table 4: RICE - Commodity Balances, 1987-89 Average, 2000 Baseline and 2000 Uruguay Round Scenarios

Countries/Regions	1987-89 Average				2000 Baseline				2000 Uruguay Round				Growth Rates: 1987-89 to 2000 UR			
	Prod.	Import	Export	Cons.	Prod.	Import	Export	Cons.	Prod.	Import	Export	Cons.	Prod.	Import	Export	Cons.
	Thousand Tonnes															
	percent per year															
WORLD TOTAL	334401	12081	12005	323886	403331	17490	17441	401918	409019	18843	18993	402433	1.8	3.9	3.2	1.8
DEVELOPING COUNTRIES	204569	9128	8882	204659	186029	12819	12767	202901	198683	14164	14010	183299	1.0	3.7	4.4	1.4
Africa	9582	3788	104	8115	9128	3878	69	12779	8193	3749	99	12799	0.2	3.3	-0.8	3.0
Côte d'Ivoire	364	432	0	809	700	494	0	1191	700	463	0	1190	4.9	1.5	-	3.2
Guinea	313	88	0	409	370	140	0	526	370	159	0	526	1.2	9.0	-	2.3
Liberia	190	87	0	293	238	201	0	438	229	201	0	428	1.0	8.3	-	3.2
Madagascar	1479	74	0	1593	1777	120	0	1899	1793	99	0	1941	1.6	2.3	-	1.4
Nigeria	1253	281	0	1513	2749	146	0	2894	2746	137	0	2926	6.9	-9.2	-	5.6
Senegal	99	310	0	416	146	441	0	624	166	461	0	624	4.5	1.4	-	3.4
Sierra Leone	297	104	0	406	474	51	0	524	478	49	0	526	4.0	-8.3	-	3.1
Latin America	12607	970	371	12629	14920	1863	783	17499	15903	1889	776	17450	2.2	5.6	6.1	2.9
Argentina	272	0	34	247	569	0	173	390	961	0	164	393	6.2	-	13.4	2.9
Brazil	7464	121	14	7772	9614	214	14	9753	9574	229	14	9727	2.1	9.8	0.0	2.2
Colombia	1112	12	11	1243	1347	196	11	1483	1349	129	11	1491	1.7	21.8	0.0	1.9
Mexico	345	90	0	442	433	232	0	669	436	229	0	640	2.0	9.2	-	3.4
Paraguay	793	149	0	933	829	332	0	1150	825	335	0	1152	0.4	7.0	-	2.7
Uruguay	334	0	236	57	485	0	343	104	494	0	392	105	3.2	-	4.1	5.2
Near East	2215	2447	74	9869	2788	4329	240	7243	3775	4743	232	7779	1.3	4.8	6.1	3.4
Egypt	1936	14	64	1519	1791	15	239	1976	1736	39	211	1979	1.2	0.6	10.3	0.2
Iran Isl.Rep.of	1099	464	0	1463	1477	1007	0	2483	1439	1011	0	2392	2.3	4.4	-	3.0
Far East	280884	2037	9433	279457	394698	3943	12446	344207	396219	2886	12913	344979	1.9	2.4	4.3	1.8
Bangladesh	16419	159	0	16438	21802	9	149	21821	21855	9	144	21654	2.9	-31.3	-	2.4
China	115300	431	742	117401	137510	1019	739	137199	137890	1141	644	137744	1.5	4.5	-0.7	1.3
India	96474	443	449	94827	94407	299	738	93687	95079	249	1143	93829	2.0	-4.7	9.3	2.2
Indonesia	27404	159	31	27381	34682	84	92	34940	35107	70	281	34819	2.1	-8.4	19.3	2.0
Korea Rep.	3210	1	1	4704	4864	0	48	4864	4835	30	50	4896	-1.3	46.9	38.5	-0.4
Malaysia	1133	290	2	1530	1646	427	2	1749	1654	422	2	1734	0.2	4.4	0.0	1.2
Myanmar	8000	0	233	8257	12647	0	745	11885	12715	0	913	11894	3.1	-	11.0	2.4
Pakistan	5093	0	852	5147	3571	0	1045	2514	3624	0	1046	2544	1.3	-	3.9	1.3
Philippines	5443	104	42	5538	7840	332	43	8119	7994	243	41	8123	2.6	7.3	0.2	2.4
Sri Lanka	1907	194	0	1953	1955	251	0	2104	1951	257	0	2104	1.7	2.3	-	1.1
Thailand	13203	0	4819	8009	14189	0	6374	8833	16489	245	4923	9440	1.6	-	2.4	1.7
Viet Nam	11913	66	1050	10484	17500	74	3367	14400	17973	78	2670	14441	3.3	1.2	9.8	3.4
Other Developing	19	192	0	210	29	268	0	293	39	268	0	296	9.2	3.3	-	2.9
DEVELOPED COUNTRIES	17622	2647	4022	17227	24508	3850	7424	14212	18220	4739	3071	14166	0.2	4.0	-0.3	0.9
North America	4144	342	3588	2739	9218	640	2042	4972	8244	484	2110	4556	2.2	4.8	-1.9	4.1
United States	4149	137	2540	2408	4219	244	2092	4356	6244	243	2130	4340	3.3	9.3	-1.3	4.2
Western Europe	1309	1591	1082	1810	1480	1499	1289	2252	1187	2018	854	2241	-0.8	3.2	-1.7	2.2
EC-12	1309	1375	1052	1435	1480	1714	1280	2132	1187	1784	851	2113	-0.4	2.2	-1.7	2.2
Other Western Europe	0	176	0	175	0	233	1	231	0	231	1	229	-	2.3	-	2.3
Eastern Europe	144	231	4	403	212	210	5	437	218	292	41	836	2.4	2.0	25.4	0.7
Former USSR	1787	580	93	2284	3089	541	53	2419	3073	409	53	3421	1.4	0.4	0.2	1.3
Oceania	402	37	144	127	479	42	479	193	444	43	891	141	3.4	2.1	2.4	1.9
Australia	402	21	364	115	479	42	479	193	444	34	492	141	2.4	1.1	3.1	1.8
Other Developed	9391	299	0	9669	8479	540	16	9048	1944	1124	280	9023	-1.2	13.2	-	-0.7
Japan	9349	32	0	9375	8473	1	16	8483	7462	758	240	9450	-1.3	40.2	-	-1.0

Coarse grains

Production. Projections of global coarse grain production point to stronger growth during the 1990s (1.7 percent annually) than during the previous decade to reach 971 million tonnes by the year 2000. Over two-thirds of the forecast increase of 176 million tonnes is expected in the developing countries, primarily in the Far East (largely China), Latin America and the Caribbean and Africa. The bulk of the increase (84 percent) is projected for maize, followed by sorghum and other grains. As with wheat, most of the projected increase in output is attributed to higher yields, with most improvement expected in the developing countries.

The implementation of the Uruguay Round is anticipated to result only in a slight expansion of coarse grain production over the baseline projections, primarily in the developed countries. Global output of coarse grains is expected to be higher by 3 million tonnes. Three-quarters would occur in the developed countries, mostly in North America, (by 7 million tonnes) and about one million tonnes each in Oceania and South Africa, whereas production will be lower by 5 million tonnes in western Europe and by one million tonnes in eastern Europe. Output is projected to rise marginally in the area of the former USSR. In the developing countries, production is likely to contract by

3 million tonnes in the Far East compared with the baseline projection. This contraction would be offset almost fully by gains in Latin America, largely accounted for by Argentina and Brazil. In sub-Saharan Africa, the aggregate output gain of close to 800 000 tonnes is expected to be shared widely.

Demand. The global demand for coarse grains is projected to reach 968 million tonnes by the year 2000, for a growth of 1.3 percent annually. Virtually all of the projected expansion of coarse grain utilization during the 1990s, some 140 million tonnes, is forecast for the developing countries. Of the total increase, almost three-quarters are forecast to be in feed use (primarily maize) with most of the balance of the increase expected for food consumption, resulting in a slight decline in per caput food use of coarse grains. There would be a strong growth among the developing countries towards livestock feeding, in contrast to an expected decline in the growth of feed use in the developed countries. In particular, feed use is expected to decline in the area of the former USSR as projected slow income growth and higher prices are likely to reduce further the consumption of livestock products, which had reached very high levels in the base period due to significant consumer subsidies.

The Uruguay Round is not expected to

increase significantly global coarse grain utilization, although the projection of more modest growth in coarse grain prices compared to wheat could encourage a shift in feed demand towards coarse grains, especially among the developed countries. As a result of the Uruguay Round, global utilization is expected to expand by about 2 million tonnes, almost entirely as feed in the developed countries. By region, utilization could rise moderately in North America and Oceania, and, to a lesser extent, in the EC, whereas contractions are expected for eastern Europe, Japan and the Republic of South Africa. In eastern Europe, the reduced feed use is mainly due to lower meat production.

Prices. The results of the Uruguay Round are projected to lead to moderate gains for maize and millet/sorghum while prices of other coarse grains (mainly barley) could rise by about 7 percent due to the Uruguay Round. This is largely due to the generally higher, and more widespread, protection provided to the "other" grains in earlier years. According to FAO's World Food Model (WFM), domestic maize prices are expected to increase among the major producing countries in Africa, Latin America and North America and to fall in Europe and the Far East. Average sorghum/millet prices will likely be higher in Africa and Latin America but lower in North America. Major barley producing countries in the Near East

and North America should experience higher prices, while barley prices in the EC, eastern Europe and the area of the former USSR should decline.

Trade. After almost no growth during the latter period of the 1980s, coarse grain trade is projected to expand by about one percent annually during the 1990s to 122 million tonnes. At this level, world trade would be substantially above current volumes of about 85 million tonnes. The bulk of the increase in coarse grain trade is expected to be in maize which normally accounts for two-thirds of the global total. The projections show a strong rise in imports among the developing countries, almost 27 million tonnes, which account for all of the growth in coarse grain trade. By contrast, coarse grain imports are expected to decline among the developed countries by about 13 million tonnes, especially in the area of the former USSR and eastern Europe. The net increase in coarse grain trade of 14 million tonnes is projected to be equally shared among exporters in the developing and developed countries.

Only modest additional expansion in coarse grain trade is expected as a result of the Uruguay Round, with most of the increase in imports occurring in the developed countries. The projections point to a modest expansion of coarse grain imports at the global level, by about 2 million

tonnes, of which two-thirds would be by the developed countries. The most significant impact is expected for western Europe where imports would be higher by 2 million tonnes. In the developing countries, increased production coupled with virtually no change in demand, would reduce the need to import by all regions, except the Far East. Here, imports would expand by close to 3 million tonnes, mainly for feed in China, and, to a lesser extent, Indonesia and the Philippines. By contrast, imports are expected to fall in Brazil, by almost 2 million tonnes, as a result of higher production. The minimum access commitments for coarse grains show a moderate increase in the quotas during the implementation period of 755 000 tonnes, or about 5 percent over the initial quota. Most of the scheduled increases in the quotas for individual coarse grains, in descending order, are in maize, barley, sorghum and millet. Countries with the largest commitments are Canada (barley), China (sorghum and millet), Hungary (maize), the Philippines (maize), Poland (barley) and South Africa (maize).

The increase in the value of coarse grain trade as a result of the Uruguay Round is projected to be substantially higher than for wheat, amounting to over US\$ 1 billion. However, unlike for wheat, the burden of higher importing costs are also likely to be more equally distributed between developing

and developed countries. Among the developing countries, the coarse grain import bills for Asia are predicted to rise by US\$ 650 million as a result of the Uruguay Round, largely in the Far East for maize and barley. By comparison, Latin America should face smaller import costs for coarse grains of around US\$ 100 million, primarily for maize, while Africa could experience a small net decline in its expenditures on coarse grain imports. The developed countries, as a group, may be confronted with an additional US\$ 500 million cost to import coarse grains under the Uruguay Round, and perhaps a little more due to lower export subsidies. The EC and some other developed countries are likely to have to pay, in aggregate, an extra US\$ 500 million for coarse grain imports, especially for maize and barley, while the area of the former USSR and eastern Europe are projected to have lower import bills under the Uruguay Round by US\$ 45 million although this could be offset by reduction of export subsidies.

As regards exports, the most striking change resulting from the Uruguay Round is likely to occur in North America and western Europe: while shipments from North America would expand by 3 million tonnes compared to the baseline, those from the latter would fall by almost 4 million tonnes. Among other major exporters, shipments by Australia and Argentina are expected to rise.

These results are partly due to the level of subsidized coarse grains exports under the Uruguay Round which are scheduled to decline from 33 million tonnes in the base period to 26 million tonnes by the end of the implementation period (down 21 percent). Some 70 percent of the volume reductions are accounted for by four countries, the EC-12 (2.2 million tonnes), Hungary (1.1 million tonnes), Canada (0.8 million tonnes) and China (0.8 million tonnes). Other countries making significant subsidy reduction commitments in coarse grains are Mexico, South Africa, Turkey and the United States.

Conclusions. The effects of the Uruguay Round on coarse grains in terms of shifts in the location of production, the direction of trade flows and the share in trade volumes are not as significant as those for wheat.

This is due to the relatively low level of subsidies in the coarse grain sector compared to wheat. Nevertheless, some regions which have subsidized production and promoted exports in the past, such as in the EC, will likely face stronger competition in the future from those countries which had fewer coarse grain subsidies, such as in North America, in particular for maize and barley, Argentina for maize, and Australia for barley. The effect of the reduction in subsidized exports under the Uruguay Round is also likely to be higher international coarse grain prices compared to a scenario without the Uruguay Round.

The effect of the market access commitments on the future volume of coarse grains imports will be determined to a large extent by the level of the bound tariffs and the in-quota tariffs under the minimum access provisions. In many countries, the bound

rates for coarse grains appear to be prohibitive, i.e. 100 percent or more, especially in some of the developing countries. In the case of maize, for example, countries with bound tariffs of 50 percent or more represent imports of 17 million tonnes, or 28 percent, of recent world trade. For those countries which offered minimum access commitments, the in-quota tariffs in some cases, in particular for maize and barley, are still high and would likely not increase the volume of imports.

As with wheat, a significant share of the world coarse grain trade is not directly covered under the Uruguay Round: about 20 million tonnes, or 22 percent, of the total imports. The largest shares of individual coarse grain imports not covered by the Agreement are for barley (53 percent of the world trade), rye (36 percent) and maize (17 percent).

Table 5: TOTAL COARSE GRAINS - Commodity Balances, 1987-89 Average, 2000 Baseline and 2000 Uruguay Round Scenarios

Countries/Regions	1987-89 Average				2000 Baseline				2000 Uruguay Round				Growth Rates: 1987-88 to 2000 UR			
	Prod.	Import	Export	Cons.	Prod.	Import	Export	Cons.	Prod.	Import	Export	Cons.	Prod.	Import	Export	Cons.
	..... thousand tonnes .....												..... percent per year			
WORLD TOTAL	794872	100894	110645	827426	967250	120374	120361	945885	970673	122330	122385	967621	1.7	1.0	0.0	1.1
DEVELOPING COUNTRIES	290682	41292	12061	221299	408649	67274	17989	458177	410652	68129	19224	457953	2.9	4.2	3.5	2.0
Africa	47940	4112	810	51989	90031	5705	912	94879	90788	5298	1124	74742	2.1	2.1	2.8	3.1
Algeria	489	1405	0	2045	1165	1751	0	2914	1174	1755	0	2924	4.6	1.4	-	2.0
Ethiopia	5049	40	0	5185	7284	55	2	7330	7300	44	14	7324	3.1	-2.9	-	1.9
Morocco	3080	173	81	3164	3958	182	29	3975	3812	211	8	3481	1.8	1.7	-18.1	2.1
Nigeria	11500	156	0	11650	17457	419	0	17861	17629	122	23	17804	3.6	3.0	-	3.4
Latin America	47316	10719	4907	75466	96122	17606	9875	105472	98144	17489	10641	105242	1.1	4.3	6.8	1.8
Argentina	11207	10	1680	4803	13078	12	8154	8151	17489	12	9429	8241	3.0	1.5	6.0	1.9
Brazil	24742	971	8	27755	38406	2166	8	42510	40673	1476	8	42608	3.5	3.9	0.0	2.8
Chile	17400	5132	27	24424	22910	4250	22	12112	22157	8992	22	22191	2.7	4.8	0.0	2.3
Peru	1113	500	2	1599	1171	534	2	1904	1389	524	2	1910	1.9	0.4	0.0	1.5
Venezuela	1980	1472	2	2652	1132	1950	0	9274	3211	1444	0	9245	4.8	2.4	-	3.4
Near East	24309	11897	802	26612	28444	14944	1281	51807	24005	14747	1067	51172	4.0	1.8	1.2	3.0
Egypt	4768	1478	3	6405	6429	1273	121	7570	6470	1237	113	7587	2.5	-2.5	35.3	1.4
Iran Isl.Rep.of	3029	941	0	4142	5019	1794	0	4701	5119	1694	0	6803	4.5	6.7	-	4.1
Saudi Arabia	274	5831	5	6190	2739	7273	4	10076	2764	7392	7	10081	18.1	2.0	2.8	4.1
Syria	1321	131	117	1459	2181	215	40	2335	2245	215	138	2334	4.7	4.2	1.4	4.0
Turkey	9043	284	258	9443	12574	394	447	12407	12734	700	752	12294	2.8	-2.1	9.2	2.2
Far East	150817	14406	6241	157264	205185	23355	4018	225844	202809	20710	5859	226149	2.5	4.2	-0.5	3.1
Bangladesh	97	5	0	91	159	4	1	147	140	4	1	143	3.2	-1.9	-	5.0
China	8549	5761	4443	95114	138138	11545	4629	165898	136237	13943	4070	145402	1.0	7.4	-0.7	3.4
India	20780	180	4	31144	21978	875	8	32770	32291	147	1	32432	0.4	0.4	-10.8	0.7
Indonesia	4002	153	91	4002	5479	214	92	4559	4941	1033	83	5074	2.4	17.2	-	4.1
Korea Rep.	646	5943	1	6464	490	10153	1	10415	497	10207	1	10744	-2.4	4.2	0.0	4.1
Pakistan	1702	1	0	1705	1781	81	4	1359	2261	10	29	2360	2.8	31.8	-	1.7
Philippines	4408	344	0	4722	4704	447	1	7236	4259	1044	1	7288	2.0	8.2	-	2.7
Thailand	6177	39	1424	2549	5707	49	1027	4737	5707	132	1149	6655	1.4	10.7	-1.6	5.1
Other Developing	8	99	0	88	7	86	0	92	7	86	0	92	1.6	2.1	-	2.9
DEVELOPED COUNTRIES	507989	47501	97844	506117	567401	53000	102274	507706	548010	54200	101041	509844	0.9	-1.8	0.4	0.1
North America	219416	2072	42998	180875	277431	268	58205	218022	284517	288	82180	223275	1.2	-13.4	-0.1	1.2
Canada	17036	715	5145	18922	18449	185	5517	21084	17227	185	4208	21070	1.4	-10.7	-	1.0
United States	196578	1357	5764	171953	250982	183	53680	196939	257280	182	55872	199134	2.2	-15.4	-0.2	1.2
Western Europe	303509	21450	77252	265808	389308	27261	24324	102272	39910	25154	22448	302648	-0.3	1.4	-1.4	0.4
EC-12	92051	20114	14202	86231	94754	21884	29817	90329	88095	23410	11780	91188	-0.3	1.5	-1.5	0.5
Other Western Europe	11458	1336	1051	11957	10455	1852	522	11893	10814	1421	560	11640	-0.5	0.5	-5.0	-0.2
Eastern Europe	55480	2857	1529	59112	57485	2185	10251	67423	54827	1724	10247	48188	-0.1	-4.1	17.2	-1.8
Poland	17846	809	79	18640	14741	1572	79	19235	16453	1139	81	17504	-0.7	1.9	0.2	-0.5
Romania	10751	204	144	10877	11521	140	2934	8932	10800	138	2440	8734	-0.1	-2.7	24.4	-2.1
Former USSR	104817	14777	449	112055	95042	2980	462	97417	95348	2648	418	97427	-0.8	-14.4	0.2	-1.8
Georgia	7047	20	3142	4781	4291	11	8894	4422	10219	31	4543	27115	2.2	0.5	3.1	2.2
Australia	7278	10	3015	3822	8637	7	2415	4803	9522	4	4477	5050	2.7	-1.8	1.3	2.3
Other Developed	10102	14315	2433	32486	12722	24805	2184	34446	12119	24257	2182	34205	2.2	-0.0	2.2	0.4
Japan	404	22057	0	21877	445	23404	0	23372	448	22709	0	23173	0.9	-0.1	-	0.1
South Africa	9682	142	2433	8292	11868	144	2184	4844	12653	147	2162	4814	1.2	0.2	2.2	1.1

Table 6: MAIZE - Commodity Balances, 1987-89 Average, 2000 Baseline and 2000 Uruguay Round Scenarios

Countries/Regions	1987-89 Average				2000 Baseline				2000 Uruguay Round				Growth Rates: 1987-89 to 2000 UR			
	Prod.	Import	Export	Cons.	Prod.	Import	Export	Cons.	Prod.	Import	Export	Cons.	Prod.	Import	Export	Cons.
	..... thousand tonnes .....				..... percent per year .....				..... percent per year .....				..... percent per year			
WORLD TOTAL	941752	71106	71560	467959	584435	80056	80041	584103	592391	82319	82345	590091	3.9	1.3	1.2	2.0
DEVELOPING COUNTRIES	189704	24531	4588	204232	286878	44523	12673	214467	284838	47809	14488	217006	3.4	5.0	3.8	3.4
Africa	19864	2079	690	22312	30750	3443	500	33930	31164	2374	863	33684	3.8	1.8	2.5	3.9
Algeria	2	1069	0	928	4	1355	0	1379	4	1394	0	1397	5.9	1.5	-	3.2
Ethiopia	1493	21	0	1703	280	1	2	2802	281	1	14	2799	9.4	-22.4	-	4.2
Mozambique	714	0	0	714	510	146	0	652	500	161	0	658	3.4	0.4	-	3.1
Nigeria	1891	0	0	1891	2945	10	0	2967	2989	0	23	2958	3.9	-	-	3.8
Latin America	53632	6198	3660	58292	77590	12890	7670	82495	79521	11253	8140	82438	3.3	5.1	7.4	2.9
Argentina	7570	1	3375	4130	12246	1	7107	5193	12749	1	7524	5205	4.4	0.0	6.9	1.9
Brazil	26047	370	3	26420	38146	2463	3	40523	38918	759	3	40073	3.5	6.0	0.0	3.5
Mexico	11050	3533	31	14396	14813	6212	21	20790	14840	6059	21	20899	2.5	9.4	0.0	2.0
Peru	843	382	3	1332	1217	492	2	1467	1233	445	2	1474	2.3	1.1	0.0	1.9
Venezuela	1157	0	3	1159	1820	394	0	2212	1784	462	0	2291	3.7	-	-	5.4
Near East	7254	4813	20	11970	10421	4384	35	14754	10962	4351	35	14754	3.1	2.7	4.8	3.8
Egypt	4075	1467	2	5655	5637	1271	2	6503	5683	1235	2	6510	2.8	-2.4	0.0	1.7
Iran Isl.Rep.of	18	665	0	891	137	1070	0	1204	135	1071	0	1269	18.4	4.0	-	2.5
Saudi Arabia	2	489	0	497	9	1406	0	1807	9	1406	0	1909	5.9	12.8	-	12.8
Syria	85	117	8	202	134	194	0	345	171	195	0	394	6.0	9.3	-	5.1
Turkey	2129	272	31	2399	3051	147	31	3180	3074	149	31	3143	3.0	-9.9	0.0	2.3
Far East	109948	13028	5949	113657	166108	23773	5299	193491	193685	26401	5480	166290	3.5	4.2	-0.0	4.1
Bangladesh	3	0	0	2	5	0	0	5	5	0	0	5	9.3	-	-	7.5
China	74829	5164	3805	78030	124210	10309	3808	130148	123700	12110	3835	130260	3.8	7.4	0.1	4.4
India	7786	95	0	7548	5605	5	0	9609	9311	7	0	5314	1.5	-15.5	-	1.8
Indonesia	6000	115	92	6023	5677	130	92	4512	8940	950	93	9789	1.4	19.2	0.1	6.1
Korea Rep.	118	5572	0	5640	142	9443	0	8406	141	9642	0	9742	1.5	9.7	-	4.4
Pakistan	0	0	0	0	1713	81	0	1790	1789	30	0	1794	3.5	-	-	3.4
Philippines	4405	84	0	9494	4709	355	0	7044	4258	783	0	7004	3.8	20.2	-	3.8
Thailand	2450	2	1344	2384	5383	2	1014	4371	5455	2	1154	4287	2.7	0.0	-1.3	5.1
Other Developing	0	14	0	21	8	31	0	37	4	31	0	37	3.4	5.7	-	4.0
DEVELOPED COUNTRIES	252048	94635	61454	241547	306540	35533	86580	271137	307553	34610	87847	273087	1.7	-2.3	0.8	0.8
North America	172085	785	98483	150647	215807	274	46238	195541	221104	279	48273	172093	2.1	-0.4	-0.0	1.1
Canada	4254	487	281	4932	7557	159	247	7951	7714	154	415	7434	1.8	-11.7	4.2	0.7
United States	145831	98	98282	145644	208350	119	45991	142494	213390	120	47842	144459	2.1	1.7	-0.1	1.1
Western Europe	28845	12088	4448	31287	32543	12385	11028	33854	30712	13310	9782	33912	0.5	0.8	-0.1	0.7
EC-12	27005	11725	3692	28221	30629	12020	10847	31748	28928	12966	8540	32198	0.5	0.8	-0.0	0.9
Other Western Europe	1890	363	247	2044	1917	265	175	2089	1883	344	192	2035	0.2	-0.4	-2.1	-0.1
Eastern Europe	26976	1863	895	28417	28638	692	6793	22778	21802	670	6341	23119	0.4	-7.3	17.7	-2.3
Poland	194	235	0	505	218	287	0	504	213	249	0	480	1.4	-0.2	-	-0.5
Romania	7513	767	167	7619	8145	124	2072	4199	7532	124	1769	5864	0.0	-2.5	21.7	-2.2
Former USSR	15301	12251	277	24854	15675	1908	278	17288	15970	1679	279	17446	0.3	-15.0	0.1	-3.5
Oceania	341	15	50	253	405	13	134	289	413	17	121	305	1.1	-1.2	7.0	2.0
Australia	210	8	25	111	219	5	94	129	220	5	90	115	0.4	-3.0	11.3	1.8
Other Developed	8940	16823	2490	29014	10742	18438	2125	27265	11552	18884	3048	34894	2.3	0.8	2.0	1.0
Japan	1	16358	0	16188	1	19103	0	19102	1	17918	0	17411	0.0	0.8	-	0.8
South Africa	8895	48	2400	7443	10748	94	2123	8713	11548	56	3047	8515	2.2	1.3	2.0	1.2

Table 7: MILLET AND SORGHUM - Commodity Balances, 1987-89 Average, 2000 Baseline and 2000 Uruguay Round Scenarios

Countries/Regions	1987-89 Average				2000 Baseline				2000 Uruguay Round				Growth Rates: 1987-89 to 2000 UR			
	Prod.	Import	Export	Cons.	Prod.	Import	Export	Cons.	Prod.	Import	Export	Cons.	Prod.	Import	Export	Cons.
	thousand tonnes												percent per year			
WORLD TOTAL	91844	9248	9586	96882	100880	10478	10478	108769	109204	9574	9582	109278	1.8	0.2	-0.0	1.0
DEVELOPING COUNTRIES	88923	3688	2082	72232	91063	8473	2899	84732	91838	9999	2723	84562	1.4	4.0	2.3	1.3
Africa	21846	197	64	22288	30898	568	182	31281	31215	283	242	31188	2.0	2.2	11.7	2.8
Algeria	0	0	0	0	0	0	0	0	0	0	0	0	-	-	-	-
Ethiopia	1127	0	0	1129	1402	20	0	1428	1397	20	0	1428	1.7	11.4	-	1.6
Morocco	19	17	0	36	29	10	0	34	28	11	0	34	3.3	-3.0	-	0.7
Nigeria	9582	38	0	4866	14465	242	0	14481	14423	54	0	14451	2.4	3.0	-	3.4
Latin America	11122	2833	1021	12828	14548	4180	1267	17883	14448	4348	1402	17588	1.2	2.8	2.7	2.8
Argentina	2606	1	1009	1646	3152	3	1163	1970	3382	3	1309	1993	1.7	5.9	1.9	1.8
Brazil	325	2	0	328	432	92	0	524	432	83	0	519	2.4	36.9	-	3.9
Mexico	5982	1546	1	7527	7630	2780	1	10394	7430	2794	1	10418	2.0	5.1	0.0	2.7
Peru	31	0	0	31	37	13	0	40	37	13	0	40	-1.1	-	-	3.1
Venezuela	731	1180	0	1411	1513	1201	0	2304	1527	1153	0	2474	6.3	-0.2	-	2.8
Near East	4015	05	363	4314	4758	128	742	6052	4828	118	812	6038	4.5	8.4	1.8	3.2
Egypt	574	0	0	574	587	0	97	491	580	0	86	494	0.1	-	-	-1.2
Iran Isl.Rep.of	20	11	0	31	33	21	0	54	33	21	0	54	4.3	5.8	-	4.7
Saudi Arabia	48	3	0	73	74	0	1	73	75	0	2	73	0.8	-	-	0.2
Syria	8	0	0	9	8	2	0	10	8	2	0	10	0.0	-	-	0.9
Turkey	10	4	1	18	0	21	1	24	5	21	1	24	-5.4	7.3	0.0	2.4
Far East	31436	411	834	33781	28810	1261	572	29806	28923	800	205	29718	-0.8	0.7	-9.0	-0.8
Bangladesh	72	0	0	72	138	0	1	137	134	0	1	138	5.8	-	-	5.4
China	4495	152	541	9543	4331	145	544	4123	4050	164	157	4226	-3.7	-10.1	-	-3.5
India	21328	0	4	21476	21111	476	0	21805	21544	47	0	21613	0.1	-	-	-0.1
Indonesia	2	11	0	12	2	14	0	18	2	14	0	16	0.0	2.0	-	1.7
Korea Rep.	5	224	0	289	3	478	0	681	3	481	0	493	-4.2	8.6	-	9.0
Pakistan	410	0	0	411	370	0	6	364	384	0	14	365	-0.5	-	-	-1.0
Philippines	0	0	0	0	0	8	0	0	0	0	0	0	-	-	-	-
Thailand	213	2	44	380	284	13	3	295	223	77	7	284	0.4	15.6	-22.7	5.3
Other Developing	1	4	0	5	1	10	0	11	1	10	0	11	0.0	7.9	-	6.8
DEVELOPED COUNTRIES	22422	5810	7514	24458	27587	4008	3584	24026	27670	4014	6860	24734	1.6	-3.0	-0.8	0.1
North America	14491	9	6724	13878	22284	8	8824	14793	22294	8	5728	17487	2.9	0.0	-1.3	2.1
Canada	0	6	1	3	0	4	1	3	0	4	1	3	-	0.0	0.0	0.0
United States	14491	1	4723	13875	22284	1	4523	14790	22294	1	5726	17484	2.9	0.0	-1.3	2.1
Western Europe	454	882	187	1038	504	868	219	1194	504	870	215	1189	0.8	-0.1	0.7	0.6
EC-12	454	838	146	944	504	824	218	1110	504	827	215	1113	0.8	-0.1	0.8	0.6
Other Western Europe	0	44	1	44	0	44	0	44	0	43	0	43	-	-0.2	-	-0.2
Eastern Europe	116	129	32	306	139	10	88	97	139	9	98	56	1.8	-19.9	9.8	-10.6
Poland	0	104	1	103	0	1	7	0	0	1	7	-	-19.2	0.0	-	-20.1
Romania	20	0	0	19	20	0	5	15	20	0	8	13	8.0	-	-	-1.1
Former USSR	2417	281	9	4044	1484	77	1	1574	1473	105	16	1579	-7.8	-30.2	4.9	-7.8
Oceania	1483	9	566	680	1857	9	718	644	1818	8	718	907	0.7	1.5	2.2	2.4
Australia	1483	0	564	675	1857	0	718	638	1818	0	716	901	0.7	-	2.3	2.6
Other Developed	501	4608	9	4894	622	3042	34	3699	638	3019	90	3582	2.0	-3.1	33.3	-2.4
Japan	1	4600	0	3993	1	2611	0	2628	1	2566	0	2614	0.0	-3.7	-	-3.5
South Africa	500	3	4	445	621	3	34	584	437	3	89	344	2.0	0.0	22.2	1.8

Table 8: OTHER COARSE GRAINS N.E.S. - Commodity Balances, 1987-89 Average, 2000 Baseline and 2000 Uruguay Round Scenarios

Countries/Regions	1987-89 Average				2000 Baseline				2000 Uruguay Round				Growth Rates: 1997-99 to 2000 UR			
	Prod.	Import	Export	Cons.	Prod.	Import	Export	Cons.	Prod.	Import	Export	Cons.	Prod.	Import	Export	Cons.
	..... thousand tonnes															
	..... percent per year															
WORLD TOTAL	281258	28440	29549	243014	269155	28861	28821	288033	248979	30437	30457	288454	0.2	0.8	0.3	0.2
DEVELOPING COUNTRIES	22247	11376	11173	42074	43911	14383	1419	56488	44181	14641	2104	96407	2.7	3.1	9.0	2.3
Africa	4233	1239	100	7399	8425	1744	50	10088	9409	1739	30	10070	2.9	2.9	-19.0	2.4
Algeria	487	416	0	1117	1145	414	1	1574	1171	411	0	1577	4.4	-0.1	-	2.8
Ethiopia	2329	21	0	2303	3074	27	0	3101	3087	17	0	1094	2.8	-7.0	-	2.5
Mozambique	2737	7	81	2556	3321	8	28	3283	3284	40	7	3284	1.5	15.4	-19.2	2.1
Nigeria	27	119	0	157	27	149	0	155	27	149	0	195	0.9	3.0	-	1.8
Latin America	2959	1490	500	4149	3434	2139	817	5224	4059	2091	920	9219	2.7	1.8	9.1	1.8
Argentina	1111	8	294	829	1440	9	425	1039	1738	9	894	1045	3.8	1.8	7.4	1.8
Brazil	420	593	5	1009	827	441	9	1443	825	437	5	1456	5.8	0.4	0.0	3.1
Chile	576	93	1	761	443	258	1	923	447	240	1	924	1.5	9.2	0.6	7.3
Peru	139	104	0	234	126	70	0	147	129	64	0	195	-0.6	-4.0	-	-1.6
Venezuela	0	292	0	342	0	353	0	353	0	350	0	350	-	1.5	-	0.2
Near East	13120	7339	420	20329	21285	8435	553	28062	21714	8279	940	28938	4.3	1.1	7.1	3.0
Egypt	135	31	1	172	205	2	22	144	207	2	23	187	3.4	-20.4	30.9	0.5
Iran Isl.Rep.of	2881	301	0	3281	4849	703	0	5541	4847	404	0	5540	4.3	8.0	-	4.4
Saudi Arabia	304	5394	5	5472	2441	5449	5	8075	2445	5448	5	9094	19.9	0.1	0.0	3.0
Syria	1228	14	117	1248	2005	18	40	1941	2104	18	139	1958	6.4	2.1	1.4	3.8
Turkey	4908	113	244	7081	9519	131	435	9207	9444	171	740	9084	2.9	1.2	9.9	2.2
Far East	9835	1170	141	10928	10247	3021	179	12049	10001	2508	294	22138	0.1	9.8	2.7	0.9
Bangladesh	12	5	0	17	14	4	0	20	16	4	0	20	2.4	-1.8	-	1.9
China	7167	447	77	7533	7867	1091	77	8798	7867	1697	78	8914	0.4	11.7	0.1	1.4
India	1454	65	0	1722	3350	194	0	3554	1432	117	1	1844	-1.2	4.4	-	-0.8
Indonesia	0	27	0	29	0	49	0	49	0	49	0	49	-	8.1	-	8.5
Korea Rep.	453	147	1	707	345	191	1	527	353	144	1	519	-3.5	0.9	0.0	-2.5
Pakistan	323	1	0	324	201	0	0	201	210	0	10	199	4.4	-	-	4.0
Philippines	0	293	0	277	0	288	0	288	0	292	0	292	-	-0.0	-	1.8
Thailand	14	35	9	40	29	52	9	71	29	53	10	72	5.9	3.5	0.9	5.0
Other Developing	0	38	0	38	0	49	0	49	0	49	0	49	-	1.2	-	1.2
DEVELOPED COUNTRIES	129009	17049	29376	220140	225245	15459	28202	212549	224797	15775	29354	212047	-0.2	-0.7	-0.0	-0.3
North America	31069	1282	7781	24502	38230	80	8443	31729	40119	88	8174	31729	2.2	-18.8	0.4	1.5
Canada	14782	24	5162	12094	18892	27	5249	13628	19523	27	5892	13593	1.3	1.0	1.2	1.0
United States	14488	1258	2836	14416	18338	83	1134	38101	20596	63	2284	14142	7.1	-22.1	-1.2	1.9
Western Europe	74210	9480	17207	59883	72261	10109	19137	43269	48094	11171	12392	47508	-0.4	2.3	-2.7	0.3
EC-12	64332	7551	16404	54014	67223	9044	14782	57501	59743	10137	11974	57928	-0.4	2.5	-2.4	0.3
Other Western Europe	3618	828	803	9467	8032	1084	345	9744	8881	1034	316	8881	-0.4	8.9	-4.1	-0.2
Eastern Europe	29388	1045	412	29509	28924	1941	3272	27091	28804	1049	3011	24019	-0.1	-0.2	14.7	-1.0
Poland	17448	450	78	17928	14454	1344	78	17722	14220	882	80	17020	-0.7	5.9	0.2	-0.4
Romania	3218	39	28	3178	3364	14	742	2819	3319	14	922	2439	0.3	-9.2	33.4	-2.2
Former USSR	97439	3145	183	91175	77583	898	183	78460	77891	689	184	78461	-1.0	-11.0	0.0	-1.3
Oceania	9023	10	2549	3849	7329	13	3043	4294	9209	13	3704	4504	2.4	2.2	3.1	2.2
Australia	5595	7	2464	3014	4861	2	3022	3874	7495	7	3671	4015	2.7	0.0	3.4	2.4
Other Developed	701	3084	25	3843	919	3808	25	3704	929	2749	25	3474	2.4	-0.9	0.0	0.1
Japan	402	2539	0	2794	441	2192	0	2443	444	2179	0	2424	0.4	-1.3	-	-0.5
South Africa	287	91	25	404	459	110	25	542	449	88	25	528	4.2	-0.3	0.0	2.3

Oils and fats and oilmeals

Production. World production of **fats and oils** is projected to reach 108.6 million tonnes by the year 2000, 42 percent above the 1987-1989 average. This output would be only marginally different (one percent higher) from the baseline projections before taking into account the impact of the Uruguay Round Final Act.

The additional quantity of oils and fats expected to be produced by the year 2000 as a result of the Uruguay Round (about one million tonnes) will be concentrated in the low-cost exporting countries of the Far East and Latin America and most of it would enter world trade. About three-quarters of the increase in production of oils and fats due to the Uruguay Round implementation is projected to be on account of larger availabilities of palm and palm kernel oils (which are the oils produced at lowest costs) originating mainly in Malaysia and Indonesia, where oilpalm plantings are expected to accelerate in response to the incentive of the Uruguay Round-induced higher prices for oils. Increases in soybean oil production, accounting for about 22 percent of the additional world output of oils and fats would largely originate from Brazil and Argentina. The export subsidy reduction commitments of the United States would result in a decrease of production in the United States. A marginal increase is

projected for production of lard and tallow, mainly on account of the Uruguay Round-induced expansion of the livestock sector projected in North America, while world output of butter is projected to fall in response to the trend towards a reduction of the protection given to this commodity in many developed and developing countries.

In the case of **oilmeals**, world production is expected to amount to 71.7 million tonnes (100 percent protein) by the year 2000 nearly 43 percent above the average during 1987 to 1989 and only 0.7 percent higher than the baseline projections ignoring the outcome of the Uruguay Round. Over 90 percent of the additional production of oilmeals, largely of soybean meal, originating from Brazil and Argentina would be for export. The slight increase of the soybean meal production projected in the Far East (Indonesia mainly) would be absorbed by the local requirements for animal feeding.

Consumption. World consumption of **fats and oils** by the year 2000 is projected to be 108.3 million tonnes, i.e. almost 40 percent over the 1987-89 average, out of which 1.0 million tonnes would be due to the Uruguay Round. However, while the projected impact of Uruguay Round commitments on the consumption of oilseed-based commodities is expected to be modest at the global level,

substantial changes would occur at regional or country levels, and for individual commodities.

About 55 percent of the projected increase in world consumption of oils and fats induced by the Uruguay Round is projected to occur in the developing countries. The Uruguay Round-induced higher price would result in a lowering of consumption in Latin America and Africa, but these decreases are expected to be largely offset by the substantial increase in consumption in the Far East region due to the demand-boosting effect of higher GDP growth.

In the developed countries, the global increase in consumption of oils and fats due to the Uruguay Round is estimated at 464 000 tonnes. Most of the additional growth in consumption is expected to occur in eastern Europe and the arc of the former USSR.

World consumption of **oilmeals** by the year 2000 is expected to reach 71.7 million tonnes (100 percent protein equivalent), about 40 percent over the 1987-1989 annual average. The boost to world consumption resulting from the Uruguay Round is projected at 500 000 tonnes (100 percent protein equivalent). Almost all of this additional amount would occur in the developing countries (60 percent in the Far East and 30 percent in Latin America). As regards the developed countries, a decrease

of 800 000 tonnes (100 percent protein equivalent) is expected to occur in the demand for oilmeals in Western Europe, resulting from the Uruguay Round-induced decline in livestock numbers. However, a rising output of livestock products as a result of the Uruguay Round is expected to lift the demand for oilmeals in North America (730 000 tonnes), which would largely offset the decline in the consumption in Western Europe. Therefore, the global growth in the consumption of oilmeals in the developed countries by the year 2000 attributable to the Uruguay Round is expected to be minimal.

Trade. The effect of the implementation of the Uruguay Round on world trade in oilseed-based products, in particular oils and fats, would be greater than for production and consumption, largely as a consequence of the expected reduction in export subsidies, of the market access commitments and the general trend towards liberalization and increased transparency of trade. The average of reduction commitments of *ad valorem* tariffs, which are the most used form of protection is of 11.3 percent for oilmeals, 16.4 percent for fats and oils and 15.1 percent for butter. Minimum and current access commitments have been established by some developing and developed countries, but they cover only 5 percent of the world trade in fats and oils and 6 percent of the trade in oilmeals, and

the increase in access offered during the implementation period is small. The export subsidy reduction commitments cover 18 percent of the world trade in fats and oils (6 percent of which for developing countries), and 11 percent of the trade in oilmeals (7 percent for developing countries). The incidence of the full implementation of commitments by the year 2000 to reduce by a global 29 percent⁵ the subsidized exports of fats and oils and by 17 percent the subsidized exports of oilmeals will be significant (these reductions refer to the trade in quantity, and include the oil and respectively the oilmeal content of traded oilseeds).

It is important to note that while the projections for trade in oils, fats and oilmeals by the year 2000 have been revised to take account of the Uruguay Round commitments, this study assumes no revisions to preferential agreements, such as the Generalized System of Preferences and the Lomé Convention.

World trade in these commodities is expected to amount to 69.3 million tonnes (38.5 million tonnes of oils and fats and 30.8 million tonnes of oilmeals - 100 percent protein equivalent), 1.8 percent above the forecast figure excluding the Uruguay Round. The value of world trade in oilseeds, oils and oilmeals, which would have risen by 32 percent between 1987-1989 and the year 2000 in the absence of the

Uruguay Round, is now projected to increase by an additional 6 percent to US\$29 600 million by the end of the century. Developing countries would account for a considerably larger share of the increase in trade than the developed countries.

World trade in **fats and oils** by the year 2000 would reach 38.5 million tonnes, 47 percent above the 1987-1989 average. The additional trade resulting from the implementation of Uruguay Round is estimated at 1.3 million tonnes. The bulk of the Uruguay Round induced increases in exports of fats and oils is projected to be in vegetable oils originating from Latin America, i.e. Brazil and Argentina (with combined exports of soybean and sunflower oils of 520 000 tonnes) and in palm oil from the Far Eastern countries, i.e. Malaysia and Indonesia (with combined exports of palm and palm kernel oil of 640 000 tonnes). The global effect of the Uruguay Round on exports of fats and oils from developed countries is expected to be minimal, as the slight increases in the exports induced in North America is expected to be offset by a decrease in export availabilities of eastern Europe. About two-thirds of additional imports by the year 2000 resulting from the Uruguay Round would be concentrated in large importing countries in the Far East, in particular China. The balance would be imported by developed countries in western

Europe, eastern Europe and Japan, reflecting the effect of increased GDP and the trend to reduce protection, which would limit domestic production.

Global world trade in oilmeals due to the Uruguay Round is projected to decrease marginally by the year 2000, compared to the level of trade in the baseline projections. This is largely the result of over 800 000 tonnes decrease projected in the imports of western Europe. By contrast, the imports of the developing countries are expected to increase by over 600 000 tonnes, mainly due to larger purchases by some Far Eastern (China, Indonesia, the Philippines) and Latin American countries.

Prices. Uruguay Round commitments to reduce subsidies to production and exports would induce some reallocation of production and trade, and world prices are expected to be higher than they would have been in the absence of the Uruguay Round. The impact on prices is particularly marked for commodities for which protectionism is most widespread, namely butter whose world prices by the year 2000, assuming full Uruguay Round implementation, are expected to be 12 percent higher than in the absence of Uruguay Round. The impact of the Uruguay Round on prices is expected to be stronger for vegetable oils than for oilmeals, and world prices in real terms of vegetable oils are expected to be 4 percent

higher by year 2000, against almost no change for oilmeals.

Conclusions. The Uruguay Round impact on world production and consumption of both oils and oilmeals is likely to be limited, but somewhat larger for the volume of world trade in oils, for the international market prices of oils and fats and for the value of the world trade in oilseeds, oils and oilmeals.

The bulk of the Uruguay Round-induced increases in the production and exports of oils is projected to be in the developing countries in the Far East and in Latin America, chiefly on account of palm and palm kernel oils from Malaysia and Indonesia and soybean-based products from Brazil and Argentina, while for oilmeals the major expansion would take place in Latin America.

By the year 2000, the increase in import demand will be mainly for fats and oils in the Far East, particularly China, and less marked expansions are expected in imports of oils and fats in eastern European countries (Poland and Romania) and western Europe.

The implementation of the Uruguay Round would increase not only the transparency of the trade environment in the sector, but also the competition for markets between exporting developing countries, which would still be confronted with

competition from subsidized exports mainly from developed countries.

Both exporting and importing countries will be required to conform to the SPS Agreement and ensure that the standards governing international trade, including those on aflatoxin contamination, remain in conformity with the Agreement without creating barriers to trade because of their excessive stringency.

Table 9: TOTAL FATS AND OILS - Commodity Balances, 1987-89 Average, 2000 Baseline and 2000 Uruguay Round Scenarios

Countries/Regions	1987-89 Average				2000 Baseline				2000 Uruguay Round				Growth Rates: 1987-89 to 2000 UR			
	Prod.	Import	Export	Cons.	Prod.	Import	Export	Cons.	Prod.	Import	Export	Cons.	Prod.	Import	Export	Cons.
	..... thousand tonnes percent per year															
WORLD TOTAL	74635	34800	26221	73635	107519	37206	33204	100285	108586	38476	38478	108323	2.0	3.1	2.2	2.0
DEVELOPING COUNTRIES	38763	12750	13134	38179	42338	20132	22064	40307	43148	20904	22246	40881	4.2	4.3	0.4	4.0
Africa	3406	1452	519	4745	5072	2094	532	7414	5080	2031	554	7397	2.4	4.7	0.5	2.8
Côte D'Ivoire	104	10	128	188	492	11	144	318	443	12	178	327	4.1	1.5	2.9	4.7
Nigeria	1150	49	45	1154	1556	290	48	1808	1558	278	46	1788	2.4	15.5	0.2	3.7
Tunisia	103	159	44	213	144	190	50	284	145	221	50	314	2.0	2.8	0.2	2.3
Zaire	244	1	0	257	305	44	0	373	304	54	0	363	1.2	40.5	-	3.0
Latin America	9797	2454	4397	1024	14124	3447	7368	11374	13472	3490	7881	11241	3.9	3.5	5.0	3.1
Argentina	2890	4	2285	543	4735	4	4057	641	4877	4	4219	639	4.5	0.0	5.2	3.4
Brazil	4483	92	1572	3023	4908	103	2438	4346	7097	102	2486	4202	3.9	0.9	5.5	2.8
Chile	271	57	101	219	288	113	81	218	268	113	81	118	0.5	4.0	-4.3	2.7
Colombia	246	150	0	444	589	85	0	674	591	161	0	751	5.4	0.4	-	6.4
Mexico	561	465	19	1507	418	1750	14	2344	422	1741	19	2245	0.9	5.0	8.0	2.8
Peru	274	91	71	306	340	146	41	427	341	144	62	419	1.0	3.9	-1.1	2.7
Near East	1483	3030	207	4503	2141	4799	189	4749	2144	4749	188	4722	2.2	2.8	-0.8	2.6
Egypt	132	740	1	941	219	1220	1	1438	225	1204	1	1428	2.2	3.4	8.0	3.4
Sudan	253	55	75	233	321	85	56	301	272	74	52	245	0.6	2.3	-2.9	2.0
Turkey	844	498	108	1213	1142	986	111	2054	1194	886	111	2054	2.5	7.0	0.2	4.9
Far East	23370	5575	7220	21033	28465	8338	13414	24024	40217	4524	14262	25414	4.4	4.4	5.2	4.4
China	4288	1531	314	7512	8124	3471	325	12271	4006	4582	328	13260	3.0	9.4	0.2	4.8
India	5305	1275	84	4494	9355	440	86	4710	9246	203	96	9367	4.7	-14.1	0.2	3.1
Indonesia	2714	138	857	1991	7335	147	3767	3714	7674	148	3479	3841	9.0	1.7	13.4	5.7
Malaysia	5922	100	5263	497	9940	117	8119	1015	9559	117	8413	1007	4.1	1.3	4.2	4.5
Pakistan	591	1019	4	1494	979	2029	4	3504	1015	1915	4	2924	4.4	5.4	0.0	5.1
Philippines	1248	54	959	392	1511	43	977	847	1520	44	903	681	1.4	1.4	-0.5	4.9
Other Developing	127	37	293	73	414	49	389	104	414	49	389	105	2.0	4.0	1.4	3.1
DEVELOPED COUNTRIES	37712	14050	13085	29446	45181	17073	15128	40978	45238	17523	15224	41442	1.5	1.4	1.3	1.5
North America	16556	1241	7502	10345	21092	1207	9524	12336	21214	1207	9444	12763	2.1	0.4	2.1	1.4
Canada	2146	146	1440	444	3598	155	2149	1644	3140	154	2209	1059	2.0	0.4	3.4	1.4
United States	14410	1095	6062	5901	18098	1153	7385	11307	18074	1153	7455	11705	1.9	0.6	1.7	1.4
Western Europe	9747	2884	3833	14450	11444	9424	3730	17344	11449	9450	3744	17445	-1.4	1.4	-0.2	1.4
EC-12	9220	2332	3534	13477	10905	8752	3439	14224	10946	8855	3471	14294	1.4	1.4	-0.1	1.4
Oth. Western Europe	727	554	294	973	780	631	241	1120	743	701	244	1149	0.2	2.0	-0.1	1.4
Austria	154	127	35	244	222	97	36	183	208	127	37	299	2.5	0.1	0.5	1.7
Sweden	204	141	83	275	199	190	84	305	194	194	94	304	-0.4	2.3	0.1	1.0
Eastern Europe	3314	505	300	2114	3437	523	709	3251	2219	737	437	3478	-0.1	3.2	-2.2	0.4
Hungary	441	12	333	317	699	12	373	137	672	13	245	400	-0.1	0.7	-2.5	2.0
Poland	944	187	214	917	1208	193	214	1817	967	343	171	1159	0.2	5.7	-1.9	2.0
Romania	552	50	70	573	518	84	38	847	511	139	38	411	-0.7	4.6	-5.0	1.2
Former USSR	5444	1551	121	7044	4444	1382	123	3749	4541	1285	124	7899	1.2	-1.0	0.2	0.7
Oceania	977	194	442	571	1206	210	150	441	1294	210	440	444	2.4	0.4	2.2	1.9
Australia	622	154	314	440	844	147	454	517	901	147	451	517	3.1	0.4	3.7	1.9
Other Developed	1222	2471	384	3590	1244	4227	293	5193	1222	4479	293	5384	0.0	4.4	0.3	3.5
Japan	814	2280	231	2838	715	2441	235	4210	754	237	4265	749	-0.4	6.2	0.2	2.4
South Africa	381	340	51	571	444	357	52	770	474	331	54	911	1.1	4.4	0.5	4.0

Table 10: OILMEAL PROTEINS - Commodity Balances, 1987-89 Average, 2000 Baseline and 2000 Uruguay Round Scenarios

Countries/Regions	1987-88 Average				2000 Baseline				2000 Uruguay Round				Growth Rates: 1987-89 to 2000 UR			
	Prod.	Import	Export	Cons.	Prod.	Import	Export	Cons.	Prod.	Import	Export	Cons.	Prod.	Import	Export	Cons.
					thousand tonnes								percent per year			
WORLD TOTAL	50185	24912	24496	51406	71178	20908	20899	71050	71498	20827	20843	71556	2.0	1.8	1.9	2.8
DEVELOPING COUNTRIES	24137	5530	23181	15787	38846	11898	20687	20013	38609	12510	21287	38684	8.3	7.0	3.7	5.8
Africa	928	279	279	922	1378	771	348	1800	2381	818	351	1846	3.4	9.4	1.8	5.8
Cote D'Ivoire	81	5	21	27	4	4	27	80	43	2	27	80	5.2	2.4	3.1	8.4
Nigeria	222	9	24	101	188	10	34	182	199	18	34	142	3.7	1.4	1.4	6.0
Tunisia	1	45	0	46	3	81	0	84	3	88	0	91	9.6	5.7	-	5.8
Zaire	44	1	4	43	68	10	1	78	69	9	0	78	3.4	28.1	-	5.1
Latin America	17488	1438	20110	4183	22245	2710	16714	7251	21853	2867	27280	7288	4.5	8.9	4.8	4.8
Argentina	3316	0	3150	78	4648	0	8423	383	8234	0	8488	287	8.3	-	4.4	8.4
Brazil	6881	0	5049	1786	11210	1	8107	3087	11571	1	8899	3053	4.4	-	4.4	4.4
Chile	801	22	771	124	807	24	823	210	807	26	817	218	0.1	2.8	-1.3	4.1
Colombia	86	10	0	158	97	110	0	227	84	158	0	252	0.7	7.0	-	4.1
Mexico	344	602	0	958	451	1415	0	1858	451	1493	0	1935	1.8	7.9	-0.8	6.0
Peru	783	50	590	175	714	55	535	233	714	55	534	214	0.1	8.8	-0.8	2.5
Near East	888	701	87	1079	2311	1534	87	2066	2313	1543	48	2857	3.8	8.8	3.8	5.8
Egypt	132	129	1	260	171	146	1	315	171	140	1	325	2.2	2.8	0.0	2.0
Sudan	181	0	78	82	190	0	91	99	180	0	41	99	1.4	-	1.3	1.4
Turkey	425	41	7	478	644	335	0	979	644	327	0	971	3.5	18.9	-	6.5
Far East	4274	3113	3284	9182	14427	8878	3508	18344	14429	7343	3421	28578	4.0	7.3	0.8	8.0
China	4575	1258	2128	3894	4143	1454	1249	4439	4121	1797	1344	4523	3.5	2.8	-3.4	4.9
India	3044	4	419	2429	5844	5	1513	4374	5935	5	1435	4305	5.7	1.9	8.4	4.9
Indonesia	143	281	122	301	439	532	124	447	445	598	125	918	38.0	6.5	0.2	9.3
Malaysia	221	241	162	346	348	487	145	417	313	445	345	630	3.9	4.0	0.2	8.5
Pakistan	538	2	1	540	854	410	1	1443	854	413	1	1448	3.9	61.1	0.0	9.3
Philippines	144	384	131	278	258	473	133	598	258	512	134	642	5.8	0.2	0.2	7.3
Other Developing	27	1	14	20	38	3	18	19	34	3	18	19	1.8	8.8	1.0	5.8
DEVELOPED COUNTRIES	26048	14383	18735	25614	32335	14010	10212	42043	32385	18337	8456	41072	1.8	-0.5	-1.0	1.1
North America	18582	424	4707	18427	22884	453	9279	14117	22810	454	9384	14850	1.7	0.6	-1.2	2.0
Canada	1122	249	454	742	1787	388	1134	854	1737	201	1154	863	3.7	0.8	0.8	2.3
United States	17470	138	8851	4845	21177	135	7444	13361	21127	155	7227	13987	1.4	1.0	-1.9	3.1
Western Europe	2849	12447	754	36439	3825	13283	743	15311	3447	11421	744	14526	2.2	-0.7	0.1	-0.1
EC-12	2587	11796	597	13780	3447	11414	407	14452	3447	10757	407	13439	2.3	-0.8	0.1	-0.1
Oth. Western Europe	372	851	159	859	388	664	136	879	360	664	137	887	-0.3	0.2	-1.2	0.3
Austria	14	233	7	341	49	186	7	230	44	158	7	247	9.2	-3.2	0.8	-1.7
Sweden	75	139	4	294	76	153	2	196	72	132	2	203	-0.3	0.0	5.8	-0.0
Eastern Europe	1007	3802	184	2824	1231	14489	192	2514	1214	1478	187	2443	1.4	-1.9	0.2	-0.9
Hungary	146	243	27	444	235	232	27	444	213	207	27	394	2.1	-6.1	0.0	-1.4
Poland	278	642	104	813	295	798	108	977	274	727	108	893	-0.1	1.0	0.2	0.8
Romania	241	119	0	360	395	31	0	319	379	112	0	592	1.2	-0.5	-	0.7
Former USSR	2303	2042	3	4341	3044	2182	4	5283	3078	2184	4	5345	3.8	0.5	2.4	1.8
Oceania	148	47	24	181	287	24	117	289	289	28	105	224	4.0	-3.7	9.9	2.8
Australia	146	42	22	156	243	24	114	245	245	26	103	218	4.0	-3.9	10.2	2.8
Other Developed	1029	3588	24	3807	1094	2434	24	3414	984	2793	24	3745	-0.4	0.4	0.0	0.3
Japan	747	1336	18	2888	474	2276	14	2927	474	2247	18	2955	-0.9	-0.1	0.0	-0.3
South Africa	262	96	6	352	302	178	8	478	385	298	6	578	-0.7	9.9	0.0	4.2

Sugar

Introduction. The impact of implementing the Uruguay Round on the world sugar economy is expected to be relatively limited. The following analysis is of a preliminary nature, reflecting mainly the consensus of opinion regarding the likely effects of agreed commitments on trade flows and price levels. Analysis of the full implications at the global level and for individual countries will be covered in detail in a new joint study of prospects in the world sugar economy to be carried out by FAO and the International Sugar Organisation in the latter part of 1995. The last joint projections study of the two organizations was published in 1992, and subsequent developments indicate the need for reassessment of projected trends for individual countries. Therefore, the present analysis has been carried out at a high level of aggregation. It assumes no further policy changes apart from the implementation of the Uruguay Round agreements, for example further national sugar policy reforms or changes in preferential trade agreements. Moreover, stocks are taken as constant. Though providing only a rough indication, the analysis at the regional and global level gives some indication of the direction and magnitude of changes in trade which might result from the Uruguay Round.

Over 55 percent of world sugar production and consumption takes place in

developing countries. About 25 percent of world production is traded internationally, with developing countries accounting for about 65 percent of total exports. On the importing side, the developed and developing regions shared about equally the total market in 1987-89. However, because of underlying factors affecting consumption, the projected growth is expected to continue to be rapid in the developing countries while import demand would stagnate or decline in the developed regions. Almost every government intervenes in the sugar market, and various restrictions and regulations in different forms are imposed on sugar production and trade. As a reflection of the role of sugar as a foodstuff and important source of calories, as well as the sensitivity of farm support measures in many major sugar producing areas, under the Uruguay Round little change will occur in domestic support programmes since existing regimes are generally considered to be consistent with the provisions of the Agreement, particularly in the European Community and the United States. Nevertheless, the extent of future support programmes is under discussion within the context of domestic legislative processes. Should changes be made in regulatory provisions, there could be far-reaching effects on global production and trade of sugar.

Uruguay Round provisions affecting sugar markets. Among the elements under the Uruguay Round Agreement on Agriculture that are foreseen to have an impact on the world sugar market are tariffication, tariff reduction, minimum access provisions and reductions in export subsidies. Tariffs are widely used by governments to intervene in trade in sugar. According to a recent study by the International Sugar Organisation (ISO), almost all countries involved in sugar trade impose tariffs or duties on sugar imports. The importance of preferential treatment of imports has been sharply curtailed since the mid-eighties and it is estimated that the volume of preferential trade is currently less than 3 million tonnes compared to about 8 million tonnes in 1985. It is therefore significant that under the Uruguay Round 89 countries have agreed to reduce tariffs on sugar imports, though average rates will still remain very high. On average, the developing and developed countries would reduce tariff rates on raw sugar imports by 22 percent and 16 percent, respectively, by 2004. For white sugar, the developed countries will undertake a larger average tariff reduction, 30 percent, compared to a 14 percent reduction by the developing countries. For some major markets, the impact of such reductions is of lesser significance as they are being made from relatively high levels, for example the European Community, Japan and the United

States. Nevertheless, the binding of tariff rates provides a ceiling for these policy instruments, which could in due course constitute a starting point for further negotiations.

A total of 20 countries made commitments on minimum access for sugar, amounting to 3.11 million tonnes in 1995, rising to 3.35 million tonnes by 2004. The United States and the European Community set minimum annual low-duty import quotas at average 1986-88 levels, about 1.14 million and 1.30 million tonnes, respectively. While based on actual import levels of the late eighties, and thus not contributing to increased access, the Uruguay Round accord effectively limited the extent to which future adjustments in supply would need to be borne by exporting countries. The import quotas of 18 other countries would provide markets for about one million tonnes of sugar exports, largely additional compared with 1986-88.

Commitments on export subsidies represent a major innovation in policy developments affecting volumes and patterns of world sugar trade. Some reductions, for example in the European Community would be achieved by the year 2000 while others would be concluded by 2004. Among the major commitments, the European Community would reduce subsidized exports by 340 000 tonnes, or 21 percent below the 1986-88 average level. South Africa would

also reduce subsidized exports by 21 percent, or 200 000 tonnes. Reductions of subsidized exports shall also be made by several major developing country suppliers including Brazil and Mexico. While the reduction commitments amount to a small proportion of world sugar trade, less than 5 percent, and are thus expected to have a limited impact, nevertheless they represent an important step in the direction of less subsidized trade in the world sugar economy. Annex tables A4 and A5 present a summary of base tariff rates, reduction commitments and minimum low-duty import quotas for selected countries.

Production. Before taking account of the Uruguay Round world sugar production was projected to grow by about 1.6 percent annually from 1987-89 to reach 127.3 million tonnes in the year 2000. Production in all regions would increase, but growth in developing countries would considerably exceed that of developed countries. In particular, production was projected to expand in the Far East and Africa by about 3 percent annually to reach 38.5 million tonnes and 7.4 million tonnes, respectively. Production in developing countries would account for two-thirds of world output by 2000. Among the developed regions, production would expand by about 1.5 percent in North America but would remain relatively stable in Europe. Also in the area

of the former USSR and eastern Europe little change is projected in production.

Implementation of the Uruguay Round would increase world production by about 1 percent to nearly 129.0 million tonnes. Most of the addition to output would occur in Latin America and the Caribbean and the Far East, where production would reach 31.1 million tonnes and 38.9 million tonnes, respectively. The Uruguay Round would have a little impact on production in most developed countries where agricultural policies are assumed to remain unchanged. Growth in North America and the European Community would continue in line with domestic market opportunities since minimum access provisions and limitations on subsidized exports would constrain the shifting of adjustments to the world market. Some additional impetus to production would, however, occur in relatively low cost developed exporting countries, such as Australia, to take advantage of market opportunities arising from trade liberalization.

Consumption. The baseline projections indicated that world sugar consumption would increase from 105.8 million tonnes in 1987-89 to 126.8 million tonnes by 2000. Consumption growth at 1.6 percent would be lower than that achieved during the eighties. As in the past, however, the expansion would be concentrated

overwhelmingly in the developing countries, consumption increasing from 58.3 million tonnes to 79.0 million tonnes by 2000. All regions would experience growth, but the bulk of the rise in consumption would occur in the Far East. However, in contrast to the eighties, consumption would increase also in the developed countries mainly in the United States and the European Community.

The rise in consumption of sugar as a consequence of the Uruguay Round would occur mainly in the developing countries, where consumption would expand by a further 2.0 million tonnes, or 2.5 percent. In the developed countries, on the contrary, consumption would be only slightly greater. The rise in income resulting from overall trade liberalization would contribute significantly to the increase in consumption in developing countries. Most of the increment would occur in Asia, but consumption would also increase in Africa, Latin America and, to a lesser extent the Near East. The Uruguay Round would have only a limited impact on sugar consumption in the developed countries because of low price and income elasticities.

Trade. Some increase in trade volume is expected to occur as a result of the Uruguay Round. Both the reduction in tariffs, but more important, rising incomes would induce world imports to expand by 5 percent over the baseline projections to 28.6 million

tonnes by 2000. Imports into the developing countries would account for most of the expansion, with increases occurring mainly in the Far East, the Near East and Africa. Imports into the European Community and the United States are not expected to exceed greatly import access commitments. The increase in import requirements would bring the world sugar market into a better balance. The reduced volume of subsidized exports would also improve the balance. As a result of increased import demand and reductions in subsidized exports, world market prices are expected to increase. The current analysis indicates that world market prices would be 7 percent higher in 2000 compared with the previous projections, thus providing some inducement for increases in production and exports, particularly among low cost competitive supplying countries.

Conclusions. The implementation of the Uruguay Round Agreement would induce increases in world sugar production, consumption and trade, but the overall effects would be relatively small. Further developments in the world sugar market will be heavily influenced by policy developments which may occur leading to reduced support to sugar production and exports. Other factors such as the economic growth in the area of the former USSR and in eastern Europe, production recovery in Cuba, and regional trading arrangements will

also have important effects on future prospects in the world sugar market. Lastly, developments in productivity and comparative advantages for sugar and alternative crops could over the longer run significantly affect the sugar sectors of individual producing and exporting countries.

Table 11: SUGAR - Commodity Balances, 1987-89 Average, 2000 Baseline and 2000 Uruguay Round Scenarios

Countries/Regions	1987-89 Average				2000 Baseline				2000 Uruguay Round				Growth Rates: 1987-89 to 2000 UR			
	Prod.	Import	Export	Cons.	Prod.	Import	Export	Cons.	Prod.	Import	Export	Cons.	Prod.	Import	Export	Cons.
	.....thousand tonnes.....												.....percent per year.....			
WORLD TOTAL	105876	25298	26412	105741	127200	27496	26420	126750	128970	28626	29075	128941	1.9	1.0	0.6	1.7
DEVELOPING COUNTRIES	61819	12920	16894	58282	76600	18550	17470	76000	80818	17828	17913	80974	2.3	2.8	0.5	2.8
Africa	5225	2124	1618	4504	7400	4400	1900	10200	7459	5104	1828	10577	2.0	4.1	1.0	4.2
Latin America	28209	997	11100	18054	30500	1000	10100	21500	31106	1050	10500	21411	0.8	1.4	-0.5	1.5
Asia	27961	8778	3737	17639	41400	10700	5020	47200	41043	11620	5127	46726	2.4	2.4	2.7	1.1
Near East 1/	2774	2438	204	5760	2900	4400	120	7400	2976	6620	123	7672	0.6	5.5	-4.1	2.2
Far East	25149	6340	3533	27979	38500	6300	4900	39800	38067	7000	5004	41253	3.7	0.9	2.9	3.3
Oceania	660	21	424	91	500	50	450	100	510	50	440	160	0.9	7.7	0.4	1.7
DEVELOPED COUNTRIES	43960	12578	9518	41511	47500	10900	10950	47750	48052	10802	11142	47967	0.9	-1.2	1.3	0.1
North America	4483	2341	497	4534	7000	2600	400	9400	7036	2650	291	9948	0.8	1.0	-2.2	1.0
Europe	21209	2975	5437	19381	22800	2840	5450	19905	23029	2849	5450	20050	0.7	-0.2	0.6	0.5
Western Europe 2/	14420	2040	5234	11701	18100	2300	5450	14950	18215	2340	5450	15105	0.9	0.9	0.2	0.9
EC	15238	1441	5082	12249	16781	1905	5286	13385	16814	1417	5286	12504	0.8	0.5	0.1	0.8
Other W. Europe	1182	449	157	1652	1303	495	164	1565	1401	502	164	1601	1.6	1.0	0.4	0.6
Eastern Europe	4704	905	198	5600	4780	540	600	4955	4814	529	600	4945	0.0	-4.2	9.0	-1.1
Former USSR	9337	5017	0	14350	9320	2040	0	12345	9387	1001	0	12110	0.0	-4.2	0.0	-1.1
Oceania	4244	213	2972	1013	5144	228	2807	1097	5332	217	3094	2107	1.9	0.2	2.6	0.7
Other developed countries	2603	2012	442	4411	1154	2132	893	4003	3269	2064	937	4862	2.9	0.1	2.2	0.7

1/ Including Turkey

2/ EC intra-trade not included.

Meat

Consumption. World meat consumption is projected to grow by 2.2 percent per annum from 1987-89 to the year 2000 to 213 million tonnes, down from the 3 percent growth rate in the 1980s. Average per caput consumption would then rise from 31.9 kg to 33.8 kg. Demand for poultry products is expected to show the strongest momentum among the various types of meat, followed by pork, which should remain the most popular meat. The contribution of the Uruguay Round Agreement to projected meat consumption is expected to be marginal at the global level, although it is estimated to be positive in the Far East. In most other regions, consumption is expected to be negatively affected by the rise in international prices of meat associated with the Round which would tend to offset the impact of lower duties on domestic prices.

The **developing countries** are expected to account for the bulk of the 50 million tonnes projected expansion in overall meat consumption, with an annual growth of 4.5 percent. Meat consumption is likely to expand fastest in the Far East. Strong income growth will stimulate per caput demand, particularly in China, Indonesia, the Republic of Korea and Pakistan. Relatively fast expansion has been projected for poultry and bovine meat in the region as diets, often based largely on pork, diversify.

Multiplication of fast-food outlets could also become an important influence underpinning demand for poultry and bovine meat.

In the rest of the developing world, population is anticipated to be the dominant factor driving demand. Nonetheless, increased economic growth in the Latin America and the Caribbean region should also stimulate demand, especially for pig and poultry meat, though beef would still account for over 40 percent of total meat intake. In Africa and the Near East, little change in per caput consumption is expected, but fast population growth would still provide the basis for a rapid expansion of domestic meat markets.

Growth of consumption in the **developed countries** has been projected to stagnate in the 1990s. Increases in per caput levels of consumption, which are already very high, will be constrained by the modest growth in incomes and increasing health concerns. A decrease in the already low rate of population growth will further contribute to slow the expansion in demand. These factors will be particularly felt in western Europe and Oceania. By contrast, in Japan, relatively fast growth has been projected reflecting changes in the dietary patterns, rising incomes and falling prices, following the reduction in tariff protection initiated in the early 1990s and carried on under the aegis of the Uruguay Round.

Structural changes in eastern Europe and

in the area of the former USSR since 1989 have been a major development affecting projections. In particular, the reduction or removal of the exceptionally large retail price subsidies, which guaranteed to most people easy access to livestock products, have already cut consumption sharply. Although a recovery in disposable incomes in the latter part of 1990s should underpin the demand for meat, consumption levels of the late 1980s are unlikely to be regained by the year 2000.

Overall, consumers in the more affluent societies are likely to place a greater emphasis on quality and convenience over increases in quantities consumed. At the end of the decade the developed countries are expected to account for less than half of total meat consumption, down from 60 percent in the late 1980s. However, the projections still show a considerable disparity between average per caput meat consumption in the developed countries of 79 kg and in the developing countries of 22 kg. The two groups of countries are, however, expected to share the long-run shift in demand towards poultry meat.

Production. Growth in world production of all major types of meat is projected to slow compared with the 1980s, except for that of bovine meat, which is projected to be maintained at a relatively low rate. Although the overall Uruguay Round effect on meat

production is expected to be very small at the global level, it is projected to be important for countries in North America and Oceania where the transmission of higher international prices under the Round should boost an expansion in the meat sector. By contrast, production in the European countries, especially in the EC, and in Japan is projected to be slightly reduced under the Uruguay Round scenario.

In the **developing countries**, growth in overall meat production is projected to diminish from an annual rate of 5 percent over the 1980s to 4 percent till the end of the decade. In volume terms these countries will record an expansion of some 43 million tonnes to 106 million tonnes, considerably more than the 24 million tonnes increase they achieved during the 1980s. Among the different types of meat, poultry and pig meat output is expected to grow faster than that of bovine and sheep meat as most developing countries have a strategy of catering for consumption growth by expansion of intensive poultry and pig husbandry.

More dynamic meat production growth than in the past decade has been projected for Africa and the Latin America and the Caribbean region, while it may slow down in the Near East and in the Far East regions reflecting resource constraints there and a reduced potential for large productivity gains. Nonetheless, meat production in the Far East is still projected to expand the

fastest, at over 5 percent per year.

Meat production in the **developed countries** is projected to rise by less than half a percent a year, as a 2 percent growth in poultry meat will be offset by stagnating output for the other meat categories. Production growth in North America and Oceania is anticipated to be fastest at 2 percent and 1 percent per annum respectively. In North America this tendency should reflect significant productivity gains, and a very dynamic poultry sector. In Oceania, production is projected to recover from the near stagnation of the past decade, mainly owing to a reversal of the previous negative trends in bovine meat output, bolstered with improved access to foreign markets under the Uruguay Round.

By contrast, production growth rates in western Europe are expected to be curbed by continuing policies to limit surpluses of live-stock products. In the EC, this was mainly fostered through the reform of the Common Agricultural Policy. In eastern and central Europe, structural changes and, in some cases, the loss of traditional export markets have been responsible for a depletion of animal stocks and for a scaling-down in meat production in the early 1990s. For most of these countries a full recovery is unlikely to occur by the end of the century. The meat sector in the area of the former USSR has been seriously impaired by the reduction of direct state support and the

movement towards a market economy, leading to massive slaughtering in the first part of the 1990s. Although it is expected that the recovery in income and demand, and progress in the transformation of the industry will assist in reversing the falling trend after the mid-1990s, meat output in the area of the former USSR is projected to decline by one quarter over the 1990s.

Projections for meat production in Japan also point to a contraction, reflecting fiercer foreign competition following the progressive opening of the domestic market to imports since the early 1990s and further improvements in access under the Uruguay Round, as well as rising production costs, in part related to a strengthening of environmental protection measures.

One outcome of these projections would be a rise in the share of global meat production of the developing countries from 39 percent in the late 1980s to over 50 percent by the year 2000.

Trade. A significant increase is projected in the volume of global trade in meat (including trade in live animals and intra-EC flows), from 14 million tonnes in 1987-1989 to 19 million tonnes in the year 2000, or 36 percent over the whole period. Of this, 3 percent can be attributed to the implementation of the Uruguay Round.

Bovine meat is likely to remain the most important commodity in international meat

trade, accounting for 42 percent of total shipments. World bovine meat imports are projected to grow by 35 percent since the late 1980s (i.e. 2.5 percent per annum) to 8.0 million tonnes, of which close to 6 percent due to the Uruguay Round. Import markets are expected to expand by over 4 percent in the developing countries. This would reflect growth in the Far East, (especially China, Indonesia, the Republic of Korea, the Philippines and Malaysia), in Latin America and the Caribbean (especially Brazil and Mexico), and in Africa (especially Nigeria). Among the developed countries, Japan is projected to import 1.3 million tonnes, three times more than in the base period, following tariffication in 1991 and the subsequent lowering in import duties from 70 percent in 1991 to 38.5 percent in the year 2000. By contrast, shipments to the United States may decline somewhat while its exports are projected to be boosted by its growing penetration of the expanding markets in the Far East. For countries in the area of the former USSR, imports and exports are projected to decline following restructuring and the dissolution of the traditional trading relationships between these countries. In the EC, the commitment to reduced subsidized exports under the Uruguay Round, combined with measures to stabilize production introduced in 1992 under the reform of the Common Agriculture Policy, should lower net bovine meat

exports compared with the baseline projections. By contrast, countries in Oceania are anticipated to regain part of the world market shares which they lost during the 1980s, reflecting improved access to some Pacific markets, especially Japan and the Republic of Korea. Under the Uruguay Round the United States has also raised Australia's and New Zealand's specific import quotas compared with recent years, but these increases basically restored access to the levels of the base period. Compared with the baseline, exports from Latin America and the Caribbean are expected to recover somewhat, following improved access to the EC and continued expansion in Asian markets. Deliveries from the region could be further boosted should some South American producing countries become eligible to supply Foot-and-Mouth Disease (FMD) free countries, as a result of eradication of the disease or the recognition of FMD-free regions within their territory, following the application of sanitary and phytosanitary measures under the Uruguay Round.

Prospects for **sheep and goat meat** are for a 2 percent per annum growth in trade to the year 2000 with little extra effect expected from the Uruguay Round. World trade has been projected to reach 1.4 million tonnes in 2000, stimulated mainly by an expansion in import demand from countries in the Near East, North Africa and the EC.

Developed countries in Europe and Oceania are expected to remain the major suppliers.

By contrast, the expansion of trade in **pig meat** products is anticipated to slow compared with the high growth rates achieved in the past decade, with the Uruguay Round bolstering the volume of flows by 3 percent, mainly from North America. Although the developing countries are anticipated to play an increasing role in world pig meat markets, the developed countries would still account for the bulk of world imports and exports, a considerable proportion of which being traded within the EC. Import markets are expected to expand in the Far East, notably in Japan and Singapore. However, shipments to the area of the former USSR are likely to fall significantly from the level of the late 1980s. One of the major developments would be the projected shift of the United States from being a net importer to a net exporter, following large scale investments in the sector in recent years. By contrast, net exports from the EC are expected to decline, reflecting a reduction in subsidized sales and a strengthening of pollution-control measures, including the EC Nitrate Directive. This may erode the positive effects of falling grain prices on production costs and, hence, on international competitiveness. In eastern and central Europe, Bulgaria, Hungary and Romania are expected to remain net exporters, although

overall sales from the region would shrink notably, reflecting, to a large extent, the Uruguay Round limitations on export subsidies. In China, expansion of the pig sector should enable the country to meet rising domestic requirements and to increase sales to foreign markets slightly, even though exports from the Province of Taiwan may be constrained by a strengthening of environment regulations on producers and rising feed costs.

World trade in **poultry meat** has been projected to grow by 5 percent per annum to 4.4 million tonnes between the base period and the year 2000, with marginal impact from the Uruguay Round. The expansion would reflect major increases in imports by high-cost producing countries such as Japan. Particularly large deficits have also been anticipated in the Near East, especially Iraq and Saudi Arabia, and in Mexico. Exports are projected to originate mainly from developed countries, with the United States consolidating its leading position supplying 35 percent of world exports while the EC commitment to reduce support to exporters is likely to lessen the EC poultry trade surplus. The developing countries are expected to raise their share in world exports following an expansion of sales by countries such as Brazil, China and Thailand. At the same time, imports by developing countries are projected to double by the year 2000, with large increases anticipated in all

regions, especially in the Far East and in Latin America and the Caribbean.

Despite the expected expansion in meat trade to the year 2000, total meat imports are expected to account for only about 9 percent of world consumption by the end of the decade, about the same share as in 1987-89. Developed countries are projected to rely on trade to meet 13 percent of their domestic demand compared with 5 percent for developing countries. The reliance on imports will be larger for bovine (14 percent) and sheep and goat meat (12 percent) and less for poultry (8 percent) and pig meat (6 percent). The balance of projected world import demand and export supplies to the year 2000 would result in a strengthening of international prices, varying between 13 percent for pig, 14 percent for bovine and poultry and 24 percent for sheep and goat meat, with a substantial boost provided by the Uruguay Round. However, given the small share of meat trade in relation to production and consumption, relatively small variations in these two basic variables may lead to large changes in world trade balances and hence to unexpected changes in international prices.

Contribution of the Uruguay Round Agreement to the projections. The impact of the Uruguay Round on projected global meat production and consumption is only slight, although there are expected to be changes in

their location. Its effect is expected to be much stronger on international meat prices and to a lesser extent on trade. The reduction in export subsidies and tariffs under the Uruguay Round will contribute to a substantial rise in international prices of livestock and meat with bovine, pig and poultry meat estimated to rise by some 8 percent and sheep meat by 10 percent compared with the "no Round" scenario. Overall, the implementation of the Uruguay Round is estimated to bring about a 3 percent increase in the volume of trade in livestock and meat by boosting bovine and pig meat transactions, while trade in poultry and sheep meat should be little affected. Countries in Latin America and the Caribbean, North America and Oceania are expected to benefit the most as the transmission of higher international prices onto their domestic markets would stimulate production and depress consumption. The commitment to reduce subsidized sales is a major reason for reduced exports from the EC and, to a lesser extent, from the Far East, especially China. On the import side, the improved access resulting from the reduction in tariffs is estimated to stimulate the developed countries' purchases, especially those by Japan, countries in eastern Europe and South Africa. The impact on the imports of the developing economies is much less, except in the Far East. For most other countries, the increase in interna-

tional prices would offset the positive effects of reduced tariff on imports.

The increased volume of trade combined with the strengthening of international prices resulting from the implementation of the Uruguay Round should lead to a substantial boost of the global value of international trade in livestock and meat products of the order of 13 percent compared with the "no Round" projections results. Among the different meat categories, bovine meat and

pigmeat trade value should be boosted the most at 14 percent, followed by sheep and goat meat and poultry meat at 10 and 9 percent respectively. Although developing countries' export earnings are estimated to rise by 13 percent, slightly faster than their import bills, their unfavourable balance of trade in meat would increase by 3 percent. This would mainly reflect rising deficits in the Far East and Near East countries which would outweigh improved balances from

countries in Latin America and the Caribbean, and to a lesser extent, in Africa. The implementation of the Uruguay Round should add 13 percent and 14 percent respectively to the developed countries' meat export revenues and import bills, resulting in a 3 percent increase in their net earnings, although meat trade deficits are projected to increase for countries in eastern Europe and in the Area of the former USSR, as well as for Japan.

Table 12: TOTAL MEAT - Commodity Balances, 1987-89 Average, 2000 Baseline and 2000 Uruguay Round Scenarios

Countries/Regions	1987-89 Average				2000 Baseline				2000 Uruguay Round				Growth Rates: 1987-89 to 2000 UR			
	Prod.	Import	Export	Cons.	Prod.	Import	Export	Cons.	Prod.	Import	Export	Cons.	Prod.	Import	Export	Cons.
	..... percent per year															
WORLD TOTAL	364162	12800	16694	362217	232267	19393	18601	232258	212661	19032	19032	212660	2.2	2.7	2.2	2.2
DEVELOPING COUNTRIES	62202	3282	2165	63793	106591	5721	2843	108616	106619	9945	4000	108269	4.4	4.9	3.1	4.5
Africa	4622	362	158	6021	8821	598	193	7224	6851	553	227	7170	3.2	6.1	2.2	2.4
Ethiopia	639	0	3	636	595	1	17	540	601	1	27	574	2.7	-	20.3	2.2
Kenya	324	0	1	324	305	6	2	509	511	2	0	505	2.0	-	18.0	7.7
Nigeria	645	24	0	649	7001	82	0	1040	1011	66	0	1013	3.0	8.8	-	4.0
Latin America	17979	844	1442	18450	24907	1207	372	24804	24492	1144	1976	23913	2.0	5.5	2.0	3.0
Argentina	3337	3	337	2841	1850	22	317	3555	3933	14	480	3467	1.6	5.9	2.0	1.4
Brazil	5424	152	652	5125	9061	156	999	8218	8942	227	922	8147	3.0	3.4	2.9	3.9
Chile	414	1	7	430	620	3	6	620	622	1	7	614	2.0	-0.7	0.0	3.0
Colombia	1087	3	9	1081	1427	31	22	1414	1423	1	19	1409	2.4	-0.7	4.3	2.6
Mexico	3376	175	302	2449	4579	642	30	9212	4609	984	20	5163	2.6	10.6	-9.0	3.4
Uruguay	424	0	170	253	497	4	220	282	503	2	225	280	1.4	-	2.4	0.9
Venezuela	785	27	6	804	1102	22	7	1127	1097	62	2	1134	3.0	3.0	-0.7	2.9
Near East	4199	3303	94	9411	9220	1900	79	7940	4208	3782	72	7990	3.4	2.5	-2.2	3.2
Egypt	713	197	2	989	820	214	3	1071	921	207	5	1023	0.5	0.6	4.3	0.5
Iran Isl.Rep. of	731	144	0	895	1319	220	0	1546	1324	210	0	1543	5.1	2.4	-	4.6
Turkey	467	22	63	924	1410	31	29	1402	1362	23	22	1384	2.0	0.4	-0.4	7.6
Far East	26997	932	1011	28791	69984	1991	1841	48019	68793	2261	1862	49176	9.2	7.8	6.7	5.4
China	25790	93	717	25165	50439	234	979	49734	50511	255	1062	49705	5.0	8.8	3.3	5.8
India	2910	0	64	2947	4096	18	111	2993	4046	54	41	4041	2.9	-	-0.7	1.0
Indonesia	1034	7	1	1040	2290	15	1	2304	2254	90	1	2244	4.3	33.7	0.0	3.0
Korea Rep.	721	63	22	767	1441	328	40	1749	1443	351	49	1745	4.0	15.4	6.9	7.1
Pakistan	1147	2	2	1147	2262	24	0	2298	2267	6	24	2291	5.6	12.2	21.0	5.6
Philippines	917	15	0	931	1463	22	5	1480	1422	172	2	1391	3.7	22.5	-	4.4
Thailand	1137	6	803	1040	1942	17	262	1698	1916	14	205	1727	4.4	8.5	5.9	4.3
Viet Nam	1023	0	0	1023	1597	7	8	1995	1263	5	14	1353	3.4	-	-	3.5
Other Developing	59	88	2	190	79	122	2	208	79	123	2	209	2.9	2.8	9.4	2.9
DEVELOPED COUNTRIES	100860	10617	11889	99494	106715	12445	14550	104822	106622	13387	35033	104518	0.4	1.8	2.0	0.6
North America	20271	1904	1298	20767	20261	1980	3109	18826	20230	1921	6546	16556	2.2	0.1	10.4	1.4
Canada	2792	227	514	2594	3518	446	961	2097	2940	430	1045	1996	1.6	6.6	6.1	0.9
United States	27379	1479	882	28091	36763	1413	2348	33812	35589	1480	3753	33549	2.7	-1.9	12.3	1.5
Western Europe	17452	4292	7221	12822	36577	7149	9008	35119	35741	7213	7293	35703	0.6	1.2	0.0	0.9
EC-12	20587	4007	6938	20747	22990	4759	7166	12012	22242	4806	7052	31486	0.7	1.0	0.1	0.9
OECD Western Europe	3865	275	392	3865	5557	390	240	3707	3499	407	199	3707	-0.8	7.2	-2.9	-0.7
Australia	765	29	96	710	771	49	100	741	726	83	67	742	-0.4	9.2	-2.1	0.4
Eastern Europe	9643	214	1202	7712	7230	220	810	6440	6701	512	440	6714	-2.1	7.8	-8.0	-1.1
Hungary	1727	12	348	1174	1712	15	202	1025	1189	15	171	1011	-0.0	10.1	-9.2	-1.1
Poland	2920	86	232	2810	2988	101	223	2855	2796	299	45	2977	-0.9	10.4	-9.2	0.5
Romania	1590	37	185	1470	1354	40	156	1036	1033	121	96	1058	-3.5	10.6	-5.3	-2.7
Former USSR	10211	992	29	10909	14659	476	37	15114	14736	339	13	15081	-2.2	-9.4	-7.8	-2.3
Oceania	4261	11	2015	2220	4719	30	2799	2299	9002	29	2722	2206	1.4	3.1	2.5	0.2
Australia	2954	8	1108	1853	3517	23	1544	1972	3303	8	1787	1924	1.9	0.0	4.1	0.3
New Zealand	1293	3	907	767	1202	19	851	394	1399	14	934	382	0.0	14.1	-0.2	0.3
Other developed	5074	1240	23	4244	5292	2882	19	9155	9012	3190	33	9179	-0.0	8.2	-4.8	2.2
Japan	3259	1063	7	4408	3274	2457	7	5924	3085	2824	7	5903	-1.2	4.5	0.0	2.1
South Africa	1254	129	5	1378	1723	177	4	1904	1451	204	3	1952	2.2	7.4	-4.2	2.9

Milk and milk products

Production. World milk production is projected to rise to 559 million tonnes by 2000, and is virtually no different from that before including the effects of the Uruguay Round. The average annual growth rate would be 0.6 percent, less than half that of the previous decade. At the global level, the increase in production is expected to result from increases in both the number of milking animals and in yields. Milk production in developing countries is projected to be largely unchanged as a result of the Round; that is, it will increase at an annual average growth rate of 2.9 percent to reach 198 million tonnes by 2000. The developing countries would then account for 35 percent of world output in 2000, compared to 27 percent in 1987-89. For the developed countries, production, at 361 million tonnes, would bring their share of world output down to 65 percent.

Unlike past trends, production is expected to rise primarily in the same areas as consumption and in a number of low-cost producing countries which do not subsidize exports. In Asia, in particular, strong growth in demand is likely to stimulate milk production. In absolute terms, milk output is projected to expand most in India. However, other countries in Asia will also rapidly raise milk output, particularly Pakistan and China. An increase is also projected in Latin

America and the Caribbean, partly in response to higher demand from the growing urban population. The improvement in international trade conditions as a result of the Uruguay Round would also favour expansion of production and exports of several low-cost producing countries in South America, particularly Argentina and Uruguay. By contrast, in Africa, difficult economic conditions coupled with inadequate feed supplies, are expected to continue to restrict dairy development, irrespective of the Round.

In the developed countries, milk production is expected to drop by 20 million tonnes relative to 1987-89, falling to 361 million tonnes in 2000, largely unaffected by the Round. The global decrease in output relates mainly to changes in eastern Europe and the area of the former USSR. There, production has contracted sharply since 1990, following the removal of producer and consumer subsidies and the restructuring of production. This tendency is expected to continue over a number of years, unrelated to the Uruguay Round, with milk output in the year 2000 projected to be 24 million tonnes less than at the end of the 1980s. By contrast, in Oceania the Round is expected to have a notable impact. Milk production there is projected to rise by 11 percent in response to increased export opportunities created under the Round; output in New Zealand is particularly sensitive to changes

in international conditions, as over 80 percent of milk production is exported. In the United States, output will probably increase at a similar pace to domestic demand to reach 75 million tonnes by the end of the decade. Canada has been assumed to continue policies of curbing surpluses leading to some decrease in production during the current decade; however, recent decisions to increase quotas in that country may result in the drop in output being less than expected. The EC is assumed to make no changes in its quota system other than those implemented at the end of the 1980s and the early part of the 1990s, and would maintain production near 1994 levels. Other western European countries are also expected to maintain levels of milk production similar to those prevailing in 1994. In western Europe as a whole, adjustment will probably be carried out through a reduction in the numbers of dairy cows, as progress in breeding and animal husbandry suggests further increases in yields. In Japan, output is anticipated to rise by 0.8 million tonnes over the base period. This is significantly below the expected expansion in domestic demand, and, as in recent years, Japan may admit imported products to satisfy a larger portion of its consumption.

Demand. Slower growth in global milk consumption is projected for the 1990s and

would be largely unaffected by the Round. This slowing would mainly reflect a lower average per caput food demand and a sharp reduction in milk use in feed in Europe and area of the former USSR. Consumption in the developed countries is expected to fall slightly, from 367 to 342 million tonnes, while that of the developing countries is projected to increase substantially, from 160 to 217 million tonnes.

The decline in consumption of milk and milk products amongst the developed countries mainly reflects contraction of demand in eastern Europe and the former USSR, dating from the beginning of the 1990s, and is unconnected with the Uruguay Round. In these two groups of countries, per caput consumption is projected to fall by almost 20 kg, from 178 kg at the end of the 1980s and to 159 kg in 2000. There, the wider availability of high quality margarine and a larger supply of vegetable oil and cooking fat will tend to reduce butter consumption. However, this may be partly offset by increased consumption of a greater variety of cheese and fresh milk products which will become available in these countries during the 1990s.

For the other developed countries, the Uruguay Round is not anticipated to have any substantial impact on milk consumption. In western Europe the reduction relative to levels in late 1980s would mainly reflect constriction of surplus disposal as animal

feed associated with the decline in milk output. Elsewhere, consumption is expected to increase in the United States, Oceania and Japan. In per caput terms, Japan is expected to register the largest absolute increase in consumption amongst the developed countries; however, at 70 kg per caput, consumption will be well below the anticipated level of 190 kg for developed countries as a whole in 2000.

In the developing countries, consumption of milk and milk products is projected to grow at an average annual rate of 2.6 percent between the late 1980s and 2000, largely as a result of factors unrelated to the Uruguay Round. Developing countries' share of global consumption is projected to rise from 30 percent in the base period to 39 percent in 2000. However, per caput consumption in the developing countries, at 39 kg, will be only one fifth of that of the developed countries. Growing population and urbanization, coupled with some increase in average incomes, will be the main factors behind the expansion of total consumption. Response to changes in incomes will remain high in all developing countries. With economic growth projected to be most pronounced in Asia, this continent is likely to experience the fastest expansion in consumption of milk and milk products: sustained growth in consumption is also anticipated for Latin America. Elsewhere, slight growth in consumption is

forecast for most countries. For a number of developing countries, population increase will mean that, while the total amount of milk and milk products available for consumption increases, per caput consumption will be lower in 2000 than it was at the end of the 1980s.

Trade. At the global level, the Uruguay Round is not expected to alter the amount of milk and dairy products traded internationally. Overall, the volume of milk and milk products exported, expressed in milk equivalent, is in any case expected to be 5 percent less in 2000 than in the 1987-89, a decline of 3 million tonnes. The principal reason for this is that in the years 1987-89 dairy exports, particularly by the EC, were especially large. Since that time, the EC has diminished milk production through quota reductions and has expanded internal schemes for surplus milk disposal. However, the commitments to reduce subsidized exports were specific to four distinct classes of dairy products, namely: butter and butter oil; cheese; non-fat dry milk; and other dairy products. Thus, even though EC exports of the butter were estimated to have fallen, by 1994, to below half the level stipulated as the maximum for 2000, exports of cheese had grown to far exceed even the initial maximum level in the EC schedule. Implementation of commitments in the dairy sector is thus

likely to put an important constraint on EC cheese exports while subsidized exports of butter and skimmed milk powder are likely to be far below those permitted under the Round.

Australia and New Zealand, which were already expected to benefit from reduced supplies of dairy products to the world market from elsewhere, are projected to increase their exports by 1.7 million tonnes as a result of increased opportunities opened up by the Uruguay Round. Both are expected to benefit from both reduced competition from subsidised exports by other developed countries and the increased openness of markets of some developed countries to imports. In North America, the United States is projected to move from being a net importer to being a net exporter of dairy products; however, this was already foreseen in the baseline projections. The principal factor behind this switch is expected to be reductions in domestic prices relative to those prevailing internationally.

Exports of milk and milk products by developing countries are projected to increase under the Uruguay Round; however, countries in this category will continue to account for a small proportion of global exports, approximately 5 percent. Most exports from the developing countries are projected to originate in Latin America, in particular Argentina and Uruguay. In Asia, growth in India's milk production

could mean that it will become a regular exporter.

Comparing imports projected for 2000 with those in 1987-89, the decline by developed countries would be largely offset by growth in purchases from the developing countries, and would be largely unaffected by the Round. Developed countries would still account for most imports, although the establishment of regional trade agreements, such as MERCOSUR in South America, may act as a stimulus to trade within developing regions. Competition for limited export supplies and reduced subsidies are expected to lift the general level of dairy product prices considerably above the average for 1987-89, this would be accentuated by implementation of the Uruguay Round. However, by 1994, average export prices for dairy products were already over 20 percent higher than those prevailing in the base period. Since then, the prices of most dairy products on the international market have risen further.

Conclusions. At the world level, virtually no change in milk demand and production is expected to result from the Uruguay Round. However, on a regional basis, the Agreement is projected to stimulate higher production in Oceania following increased export opportunities, which will be offset by a contraction in Europe and the area of the former USSR. Similarly, the Round is

expected to have a slight positive impact on production in Latin America.

The overall level of trade in milk and milk products is not expected to be affected by the Uruguay Round; however, there will be some redistribution in terms of region of origin and destination. The reduced volume of subsidised exports from several developed countries will, to an extent, be offset by increased exports from Oceania. Some growth in export opportunities is also likely to promote the expansion of shipments by some developing countries, especially in Latin America. A decrease in the proportion of subsidised exports of milk and milk products is expected to result in higher prices, which could restrain imports by many developing countries. In contrast, imports by some developed countries could be increased as a result of minimum access agreements under the Uruguay Round.

Table 13: TOTAL MILK - Commodity Balances, 1987-89 Average, 2000 Baseline and 2000 Uruguay Round Scenarios

Countries/Regions	1987-89 Average				2000 Baseline				2000 Uruguay Round				Growth Rates: 1987-89 to 2000 UR			
	Prod.	Import	Export	Cons.	Prod.	Import	Export	Cons.	Prod.	Import	Export	Cons.	Prod.	Import	Export	Cons.
	Thousand Tonne												percent per year			
WORLD TOTAL	522594	55920	57539	527194	558925	54264	54251	558921	559297	54550	56511	558226	0.4	-0.2	-0.4	0.5
DEVELOPING COUNTRIES	148104	20302	1137	140204	197487	22906	2483	213810	197926	21994	2933	214660	2.9	0.4	8.2	3.4
Africa	11442	2952	47	15910	13955	5911	40	18707	13983	5755	71	18944	1.7	2.2	2.5	1.9
Algeria	2334	3	14	2324	3424	0	31	3393	3427	0	41	3384	3.3	-	9.4	3.2
Angola	300	218	0	578	509	439	0	947	510	432	0	943	2.9	5.9	-	4.2
Botswana	2419	54	0	2473	1959	81	0	2039	1962	72	0	2034	-1.7	2.4	-	-1.4
Latin America	24872	9155	554	45250	81617	4228	1044	54101	51480	4200	2190	54110	2.2	-2.8	12.1	1.5
Argentina	4466	46	263	4149	9420	93	1373	7100	9421	93	1472	7002	2.5	1.2	14.1	1.4
Brazil	13629	491	13	14704	19477	45	57	18465	19527	45	69	18502	2.5	-22.0	14.9	1.9
Mexico	4504	2247	1	8789	8436	1709	2	10202	9520	1744	2	10270	2.3	-2.1	3.9	1.3
Uruguay	994	1	170	829	1399	1	305	432	1304	1	382	923	2.3	0.0	7.0	0.9
Near East	10232	4591	68	20963	19184	6163	73	25274	19203	4065	71	25197	1.6	2.3	0.4	1.4
Egypt	2179	349	11	2627	2691	433	12	3102	2695	421	12	3094	1.8	0.7	0.7	1.4
Jordan	2943	319	0	2941	3314	114	0	3432	3327	92	0	3419	1.2	-2.1	-	1.2
Turkey	4894	99	15	4533	5947	13	15	5544	5558	9	12	5550	1.1	-17.2	-1.2	1.0
Far East	72473	5511	498	78332	112671	4349	506	118532	112690	5911	611	113440	3.6	0.1	2.2	2.5
China	6321	266	32	4398	9746	145	34	9875	9792	395	34	9943	3.7	-3.0	0.5	3.9
India	49700	144	0	49844	73157	589	0	73745	73157	17	100	73073	3.4	-22.2	-	3.4
Korea Rep.	1425	49	1	1483	2493	54	1	2536	2499	62	1	2550	3.6	2.1	0.0	2.5
Pakistan	12935	184	0	13120	22308	387	0	22695	22329	11	0	22341	4.7	-20.9	-	4.5
Other Developing	42	93	0	154	60	136	0	194	60	136	0	194	-0.3	3.2	-	2.0
DEVELOPED COUNTRIES	381478	35628	56402	346957	361438	31460	51749	341112	361331	33493	51570	343474	-0.5	-0.7	-0.7	-0.4
North America	72991	6695	3482	75357	81898	3485	4124	81449	81864	2500	4242	81282	1.0	-2.2	0.2	0.9
Canada	7657	411	850	7141	7289	293	795	6892	7134	401	503	7039	-0.6	-0.2	-4.2	-0.1
United States	45334	4274	3132	48714	74400	2792	335	74957	74330	3359	3615	74254	1.1	-2.5	1.2	0.7
Western Europe	139448	27073	41915	129959	129563	24509	35431	110442	129139	25247	33107	119390	-0.4	-0.4	-1.9	-0.4
EC-12	123400	24042	35465	114734	114514	23548	33044	104980	114458	24255	32964	105147	-0.7	-0.6	-1.5	-0.7
EC-12 Western Europe	15196	991	2430	14225	15049	961	2547	13442	14890	992	2140	13533	-0.5	0.0	-1.1	-0.4
Austria	1494	337	627	3215	1444	232	423	2149	1299	333	461	3162	-0.5	-0.1	-2.5	-0.1
Finland	2925	43	497	2420	2491	39	432	2094	2495	38	414	2107	-0.1	-1.0	-1.3	-1.1
Sweden	3140	185	290	3245	3394	174	282	3074	3090	205	178	3114	-0.7	0.3	-3.7	-0.4
Switzerland	3812	347	767	3401	3895	339	518	3315	3824	338	803	3310	0.2	-0.2	1.0	-0.2
Eastern Europe	27704	437	2604	30554	22098	293	2390	20892	20845	197	873	20198	-1.3	-0.4	-6.7	-0.4
Former Czechoslovakia	7054	18	374	4288	5344	14	426	4992	5411	18	474	4987	-2.2	-2.1	-4.7	-1.9
Hungary	2963	29	180	2711	2498	23	234	2271	2379	23	181	2301	-1.5	-1.6	-4.7	-1.4
Poland	15944	138	1422	14575	14293	123	1426	12499	13210	125	210	13125	-1.5	-0.8	-14.8	-0.8
Romania	4237	42	39	4320	2774	3	97	3442	3717	6	2	3719	-1.2	-20.4	-21.9	-1.2
Former USSR	106147	402	321	106428	88814	224	18	89182	89021	152	48	84129	-1.5	-10.8	-15.7	-1.5
Czechia	13940	292	7402	4624	14539	217	4470	7124	14414	214	11373	71034	2.5	0.9	1.4	0.8
Australia	8345	184	1447	4591	8279	203	3551	4931	8143	204	4368	5001	3.1	0.7	6.9	0.7
New Zealand	7445	13	5655	2035	8700	15	8119	2194	8232	15	7049	2100	1.9	1.2	1.9	1.8
Other Developed	31240	2624	19	33923	12475	2511	47	14914	12006	3307	17	15296	0.6	1.9	0.5	0.8
Japan	3647	2512	3	10174	8400	2501	3	11099	8453	2703	3	11232	0.9	0.9	0.0	0.9

Coffee

Lower import tariffs for coffee, following the Uruguay Round of Multilateral Trade Negotiations, were not envisaged to have much effect on the world coffee market. Developed countries, by far the largest importers of coffee, already had low, or no import tariffs for the commodity, and therefore their reductions in duties would be relatively modest. The higher import duties for coffee largely applied by some producing countries, would not, with a few exceptions, be reduced significantly under the Uruguay Round. Therefore, factors such as economic growth, the relatively high level of consumption reached in the developed importing countries, changes in taste and preferences, weather conditions in supplying countries, were envisaged to play a more central role in shaping the world coffee market by the year 2000, than the conclusion of the Uruguay Round.

Production. World coffee production is projected to reach 7.1 million tonnes by 2000, less than one percent above the pre-Uruguay Round estimate. This represents a growth of 1.3 percent per year between the late eighties and the year 2000. By contrast, world production of coffee grew at an annual rate of 2.6 percent during the preceding decade, when, after the disastrous

frost of 1975 in Brazil, a huge draw-down in coffee stocks took place and prices reached unprecedented levels fuelling a massive expansion in coffee areas globally. This expansion carried on into the eighties and was the main cause for a production growth rate twice as high as the one projected for the nineties. Furthermore, the resulting over-supply situation in the eighties was exacerbated by the introduction of national price support schemes which shielded many producers from the effects of declining market prices. However, since the late eighties policies isolating coffee growers from lower prices have tended to disappear, at least partially, and therefore the rate of growth in global coffee production has decreased.

Most of the limited increments to production stimulated by the Uruguay Round are expected to take place in Latin America and the Caribbean and Africa, where coffee output should reach to 4.24 million tonnes and 1.44 million tonnes, respectively. In Latin America and the Caribbean, the coffee crop is expected to increase slightly in Brazil, by 10 000 tonnes, Colombia, by 4 000 tonnes, and some other countries of the region, by 9 000 tonnes. In Africa, growth should occur mainly in Côte d'Ivoire, 5 000 tonnes, and Ethiopia, 3 000 tonnes, and to a lesser extent in Cameroon, Kenya and Zaïre, with a combined 6 000 tonnes.

Demand. Global coffee consumption is also projected to expand, as lower import duties would translate into slightly lower consumer (retail) prices for coffee, and these into slightly stronger demand for the commodity. North America, Europe and Japan account for nearly 90 percent of world trade in coffee. Imports of coffee into North America are to remain duty free, with the exception of coffee used as ingredient in substitutes. In the EC the 5 percent duty on green coffee will be phased out by 2000, and green decaffeinated coffee reduced from 13 percent to 8.3 percent. Tariffs levied on roasted coffee will be reduced by 50 percent from base rates of 15 percent for regular coffee and from 18 percent for decaffeinated. In Japan, where import duties were levied only on roasted coffee and substitutes containing coffee, the base rate of 20 percent will be bound at 12 percent by 2000. However, because of the slowdown in economic growth and saturation in some markets, world demand for coffee is only projected to grow by 1.8 percent per year between the late eighties and the year 2000, compared with 2.3 percent a year during the previous decade.

Global coffee demand is projected to be about 130 000 tonnes greater in the year 2000 as a result of the Uruguay Round. More than 85 percent of this increase would be absorbed by developed countries, mainly in Europe. Europe and North America will

remain the two largest coffee consuming regions with an estimated intake of around 2.8 million tonnes and 1.3 million tonnes, respectively. In Europe, the Uruguay Round would translate into a 3 percent increase in the level of coffee demand by the year 2000, while in North America projected consumption would remain unchanged from pre-Uruguay Round estimates. In Japan demand is projected somewhat higher as a result of agreed reductions in import tariffs.

Coffee consumption in developing countries would reach approximately 2.45 million tonnes, a modest increase of 18 000 tonnes from pre-Agreement estimates. Increased consumption in the developing world was likely mainly in Africa and Latin America, the main producing areas.

*Trade.*⁶ Projections of world coffee imports were also revised upwards slightly as a result of the Uruguay Round. The relatively modest projected increase in global imports, of 118 000 tonnes, again reflects the reduction of import tariffs for coffee in some developed and developing coffee consuming countries and, which would encourage some growth in import demand. Consequently, world imports for coffee should grow, by 1.2 percent per year, to around 5.01 million tonnes by the end of the decade. Coffee imports grew at an average annual rate of 2.5 percent per year during the eighties, underpinned by the abundant supply

situation and the relatively depressed level of prices.

Import demand for coffee in developed countries is expected to grow at an annual rate of 1.14 percent, reaching 4.65 million tonnes by the end of the decade. Coffee imports would increase most strongly in Europe, by 69 000 tonnes. Smaller increases were projected for Japan and developed countries in Oceania and the area of the former USSR.

Coffee imports by developing countries as a whole were projected at 362 000 tonnes, 8 000 tonnes above the pre-Agreement estimates. Consequently, coffee purchases by developing countries were likely to grow by 2.0 percent per year during the nineties, compared to 1.6 percent during the preceding decade.

Most of the projected growth in exportable coffee supplies would originate in Latin America and the Caribbean and Africa, but smaller increases were also projected in the Far East. Exports from Latin America and the Caribbean were projected to rise by 17 000 tonnes to 3.11 million tonnes, while in Africa coffee sales to overseas destinations would increase by 16 000 tonnes to 1.14 million tonnes. In Latin America, increases in exports were projected, among others, for Brazil, 6 000 tonnes, Colombia, 3 000 tonnes, and Costa Rica, 2 000 tonnes. Coffee exports in Africa would increase mainly in Côte d'Ivoire, by

5 000 tonnes, Ethiopia, by 4 000 tonnes, Kenya, by 3 000 tonnes, Zaïre, by 2 000 tonnes and Cameroon, by 1 000 tonnes. Increases totalling close to 6 000 tonnes were projected for developing coffee exporters in other regions, mainly the Far East.

Prices. As a result of the Uruguay Round, consumer prices for coffee should decline slightly in certain markets, encouraging some rise in demand for imports there. Nevertheless, a major factor affecting overall market growth will continue to be the slower rate of increase in certain markets such as western Europe and North America where consumption approaches near saturation. The incremental growth in demand for coffee should underpin export prices in producing countries, encouraging a positive supply response. However, the impact of a stronger world demand for coffee, should outweigh the impact of an eventually larger availability of supplies, and therefore, at the world market level, coffee prices in 2000 should be slightly firmer than without the effect of the Uruguay Round. As for the actual price level, this would depend also on other factors which directly affect supply and demand, such as weather conditions in producing countries and the stock levels in importing countries as well as any policy measures such as export retention schemes, which have not been modelled in this analysis.

Table 14: COFFEE - Commodity Balances, 1987-89 Average, 2000 Baseline and 2000 Uruguay Round Scenarios

Countries/Regions	1987-89 Average				2000 Baseline				2000 Uruguay Round				Growth Rates: 1987-89 to 2000 UR			
	Prod.	Import	Export	Cons.	Prod.	Import	Export	Cons.	Prod.	Import	Export	Cons.	Prod.	Import	Export	Cons.
	.....thousand tonnes.....															
WORLD TOTAL	6097	4342	4340	5727	7089	4891	4970	9967	7099	9009	5009	7095	1.3	1.2	1.2	1.0
DEVELOPING COUNTRIES	9097	289	8390	3712	7096	356	4970	2430	7099	362	5009	2660	1.2	2.0	1.3	3.0
Africa	1233	119	980	277	1916	138	1120	830	1436	141	1100	837	1.2	1.4	1.3	3.9
Cameroon	107	115	15	120	112	112	18	132	112	112	19	19	1.0	-0.1	2.0	
Cote d'Ivoire	232	200	3	230	297	3	295	252	252	3	0.0	0.0	1.9	0.0		
Ethiopia	182	87	97	214	76	130	213	80	137	137	1.0	-0.7	2.0			
Kenya	117	95	4	190	190	0	150	143	7	2.1	3.5	4.0				
Uganda	153	154	2	190	190	4	190	185	5	1.3	1.4	4.3				
Taiwan	101	85	10	124	112	17	124	114	12	1.9	2.5	1.5				
Latin America	3822	44	2744	907	4220	42	3091	1192	4243	45	3100	1200	0.9	3.3	1.0	2.4
Brazil	1700		1093	360	1700		1236	464	1710		1242	490	0.0		1.1	2.0
Colombia	475		650	110	905		765	140	809		764	141	2.9		1.4	2.1
Costa Rica	143		130	17	174		151	25	178		153	25	1.9		1.4	3.3
El Salvador	129		118	9	158		147	12	155		149	13	1.0		1.4	3.1
Guatemala	194		160	30	235		151	42	233		193	42	1.9		1.9	2.8
Mexico	398		224	107	302		157	145	305		159	146	-1.4		-2.0	2.5
West East	6	61	1	49	8	83	91		8	88	92	2.4	2.7		2.9	
Far East	971	61	590	957	1320	76	977	312	1326	72	681	717	2.4	1.4	1.8	3.8
India	177		101	60	207		112	95	207		112	95	1.3		0.9	3.9
Indonesia	390		316	39	488		428	60	489		431	58	1.8		2.6	3.6
Philippines	146		23	116	210		36	174	212		39	174	3.2		1.4	3.5
Viet Nam	144		77	142	245		71	214	246		21	215	3.1		-1.5	7.4
Other developing	95	1	52	2	82		78	9	82		80	2	2.0		2.0	0.0
DEVELOPED COUNTRIES	9059			9015	9537			9537	9097			9697			1.1	3.2
North America	1226			1199	1260			1260	1280			1290			0.2	0.4
Canada	109			105	122			122	122			122			0.9	1.3
United States	1115			1094	1138			1138	1158			1168			0.2	0.4
Europe	2110			2097	2490			2490	2759			2759			1.5	1.5
EC	1807			1787	2130			2130	2218			2218			1.7	1.8
France	325			325	368			368	387			387			1.5	1.3
Germany	574			572	978			978	991			991			1.9	1.9
Italy	254			259	323			323	349			349			2.9	2.9
Netherlands	150			149	179			179	182			182			1.9	1.7
Spain	148			133	192			192	195			195			2.3	3.2
UK	147			147	175			175	180			180			1.7	1.7
Other Europe	271			271	439			439	439			439			1.4	1.4
Sweden	95			95	101			101	102			102			0.4	0.4
Former USSR	100			100	108			108	110			110			0.8	0.8
Oceania	54			54	70			70	74			74			2.9	2.9
Other developed	168			168	409			409	442			442			1.5	1.9
Japan	140			140	370			370	386			386			1.1	1.1

Cocoa

Following the Uruguay Round of Multilateral Trade Negotiations, import duties on cocoa products are to be reduced in several major markets. Import duties on cocoa beans, in place mainly in cocoa producing countries, are also to be reduced in some importing countries. In the period to 2000, cocoa exports from developing countries will continue to be mainly in the form of beans, and therefore gains ensuing from lower import duties on cocoa products should benefit developing countries mostly through stronger derived import demand for beans. Nevertheless, the reduction in import duties on cocoa beans and cocoa products is not expected to have a major impact on the world cocoa market.

Production. Global cocoa output is projected to reach 2.83 million tonnes, 2.8 percent higher than the pre-Agreement estimate. Consequently, global cocoa production is anticipated to grow by 2 percent a year between the late eighties and the year 2000, compared with 1.8 percent per year projected without the Uruguay Round. By contrast, world production of cocoa grew at 4.3 percent per year during the preceding decade, mainly because cocoa growers in major producing countries were, by means of diverse policy instruments, insulated from low market prices and thus encouraged to

sustain production growth.

Most of the 77 000 tonnes projected increase in world cocoa output resulting from the Uruguay Round should originate in Africa and in the Latin America and Caribbean regions. Only marginal increases in output are projected for the Far East, but its share in total production is expected to grow from 13 percent during 1987-89 to around 28 percent by 2000, in line with previous projections. The larger share projected for the Far East would stem from continuing rapid growth, mainly in Indonesia and Malaysia, while production shares are expected to decrease in Africa and to decrease in Latin America. The share of Africa would decline from 57 percent in 1987-89 to around 50 percent in 2000, and that of Latin America and the Caribbean region from 28 to 20 percent, also in accordance with pre-Agreement estimates. By the year 2000, the Far East would displace Latin America and the Caribbean as the second largest cocoa producing region in the world; the Far East will continue to capitalize on its lower production costs, improved production techniques involving high yielding hybrid material and relatively unrestricted land availability.

Demand. World cocoa consumption is also projected to slightly exceed previous estimates, a direct reflection of lower import tariffs for the commodity agreed under the

Uruguay Round. Global demand for cocoa should grow by 2.6 percent per year to about 2.83 million tonnes by 2000, compared to 2.3 percent per year projected prior to the conclusion of the Uruguay Round. Demand growth would nevertheless still be limited in major markets such as Europe, North America and the area of the former USSR, compared to the previous decade when world cocoa intake grew at an annual rate of 3.8 percent.

Cocoa consumption will continue to be concentrated mainly in developed countries, which would account for more than 80 percent of total demand in 2000. Cocoa intake by developed countries is projected to reach 2.34 million tonnes, an increase of 84 000 tonnes over pre-Agreement estimates, while demand in developing countries should reach 487 000 tonnes, 15 000 tonnes above pre-Uruguay Round projections.

Cocoa demand projections have been revised upwards for Europe, by 54 000 tonnes; North America, by 20 000 tonnes; and for other developed countries, by 11 000 tonnes. In North America, demand is now expected to grow from 548 000 tonnes in 1987-89 to 712 000 tonnes in 2000, reflecting a small increase in consumption per caput. European demand was likely to grow from about 929 000 tonnes in 1987-89 to around 1.23 million tonnes in 2000, and in the area of the former USSR from

169 000 tonnes to 194 000 tonnes during the same period. In Japan, with relatively low per caput consumption, cocoa demand is expected to grow from 102 000 tonnes in 1987-89 to 145 000 tonnes in 2000.

Cocoa consumption is also projected to increase slightly above pre-Uruguay Round estimates in Africa, by 7 000 tonnes; in Latin America, by 5 000 tonnes; and in the Far East, by 3 000 tonnes. Aggregate demand in the developing countries is projected to grow at 4.4 percent a year to reach 487 000 tonnes by 2000. Latin America and the Caribbean would remain the largest developing consuming region, accounting for 55 percent of consumption. In the Far East, the analogous share was projected to increase from 20 percent in 1987-89 to 28 percent in 2000.

*Trade.*⁷ Projections for global cocoa trade in 2000 have also been revised upwards following the conclusion of the Uruguay Round. Lower domestic prices resulting from reduced tariffs would underpin stronger demand for imports in several markets. Consequently, world cocoa trade is expected to grow to 2.45 million tonnes by the end of the decade.

World imports of cocoa are expected to grow by 1.6 percent per year during the nineties, compared to an annual growth rate of 1.3 percent projected prior to the Uruguay

Round agreement. World imports of cocoa increased by approximately 4.5 percent per year during the previous decade when supplies were ample and market prices relatively weak, particularly towards the end of the period.

Import demand for cocoa in developed countries is expected to reach 2.34 million tonnes by 2000. Most of the increment in cocoa imports resulting from the Uruguay Round would be accounted for by countries of Europe and North America. The EC would remain the main import market for cocoa beans and products, absorbing more than 40 percent of globally traded supplies in 2000. In North America, import demand would grow by 1.3 percent per year, reaching 712 000 tonnes by the end of the decade. Cocoa import requirements in the area of the former USSR would remain almost unchanged from 1987-89 levels, at around 194 000 tonnes, while in Japan they are likely to increase from 118 000 tonnes in 1987-89 to around 145 000 tonnes in 2000.

Developing countries as a whole are expected to import 105 000 tonnes in 2000, a modest increase of 2 000 tonnes from pre-Uruguay Round estimates. Their demand for cocoa imports would grow by 1.6 percent per year during the nineties, and their purchases would account for about 4 percent of world cocoa trade in 2000.

The likely growth in exportable supplies

resulting from the Uruguay Round Agreement would originate mainly in Africa, but smaller increases were also projected for countries of Latin America and the Far East. Cocoa exports from Africa are projected to rise by 48 000 tonnes, with most of the additional volume originating in Côte d'Ivoire and Ghana. Exports from Latin America and the Far East would be higher in the year 2000, by 10 000 tonnes and 4 000 tonnes, respectively.

Prices. As a result of the Uruguay Round the import demand for cocoa should strengthen in markets where import duties are to be reduced, even though the reductions are generally rather small. Lower consumer prices should encourage the demand for cocoa and cocoa products and the impact of a somewhat stronger world demand for cocoa should exceed the impact of eventually larger supplies, and therefore international cocoa prices in 2000 should be slightly firmer than without the effect of Uruguay Round. The actual level of prices would continue to depend also on other factors such as national policies affecting cocoa production, policies affecting consumption levels in importing countries, weather conditions in producing countries, and the level of stocks in relation to demand, which were assumed exogenous to this analysis.

Table 15: COCOA - Commodity Balances, 1987-89 Average, 2000 Baseline and 2000 Uruguay Round Scenarios

Countries/Regions	1987-89 Average				2000 Baseline				2000 Uruguay Round				Growth Rates: 1987-89 to 2000 un			
	Prod.	Import	Export	Cons.	Prod.	Import	Export	Cons.	Prod.	Import	Export	Cons.	Prod.	Import	Export	Cons.
..... thousand tonnes.....																
													..... percent per year.....			
WORLD TOTAL	2221	2034	2018	2088	2746	2383	2386	2732	2831	2449	2449	2831	2.0	1.6	1.4	2.4
DEVELOPING COUNTRIES	2221	87	2038	291	2754	103	2386	472	2811	104	2449	487	2.0	1.8	1.8	4.4
Africa	1248	4	1243	24	1169	4	1172	21	1414	4	1190	28	0.9		0.9	3.8
Côte d'Ivoire	714		745	4	720		715	5	737		731	4	0.3		-0.2	
Ghana	237		219	1	228		227	1	247		245	2	2.2		2.9	4.9
Nigeria	138		127	4	152		147	5	154		148	6	0.9		1.3	2.4
Cameroon	129		111	1	122		111	1	137		136	1	0.6		1.0	0.6
Latin America	424	22	467	174	552	24	532	264	548	24	523	269	-0.8	0.7	-2.0	3.8
Brazil	350		258	63	190		185	105	209		192	107	-1.3		-1.4	4.5
Ecuador	83		90	7	75		71	4	77		72	5	-0.6		-1.8	
East Asia		22		20		30		30		10		10		2.6		1.4
Far East	287	20	273	87	784	45	698	122	791	47	702	114	8.8	1.6	8.2	7.5
Indonesia	46		42	3	340		340	20	240		240	20	15.2		15.1	17.1
Malaysia	206		193	14	370		349	11	274		253	21	4.1		5.1	1.3
Other developing	42		24	14	54		41	14	58		44	14	2.7		1.9	0.0
DEVELOPED COUNTRIES		1947		1797		2240		2260		2344		2244			1.6	2.2
North America		407		448		492		492		712		712			1.3	2.2
Canada		51		47		60		60		63		63			1.8	2.5
United States		554		501		631		632		649		649			1.3	1.2
Europe		485		928		1178		1175		1229		1229			1.9	2.4
EC		792		736		949		909		1004		1004			2.0	2.6
Belgium-Luxembourg		49		44		59		60		61		61			1.8	2.4
France		150		141		189		189		194		194			2.3	3.8
Germany		233		241		293		299		312		312			2.5	3.2
Italy		49		63		81		83		86		86			1.8	2.6
Netherlands		33		22		45		44		48		48			4.3	6.7
Spain		51		46		67		67		70		70			2.7	3.4
United Kingdom		181		149		196		194		203		203			1.0	2.6
Other Europe		193		111		199		199		225		225			1.7	6.1
Switzerland		34		37		39		39		41		41			1.4	1.8
Poland		23		24		25		25		42		42			5.1	4.8
Former USSR		192		169		192		192		194		194			0.1	8.7
Oceania		13		28		41		41		42		42			2.0	2.8
Other Developed		110		118		149		149		167		167			2.1	2.9
Japan		118		102		119		119		145		145			1.7	1.0

Tea

The impact of the Uruguay Round on the world tea economy should be small for two reasons. First, trade in black tea is already relatively free of restrictions. In some of the world's largest importing countries, such as the United Kingdom and the United States, no restrictions are imposed on black tea imports, while tariffs are levied at low rates in most other major markets. The second is the expectation that structural surpluses would continue to prevail over the projections period, thus limiting increases in world market prices induced by stronger import demand following trade liberalization. However, since the Uruguay Round is projected to bring about significant increases in global income, there is likely to be a positive impact on tea consumption in addition to the tariff effects.

Production. Production expansion programmes initiated by many exporting countries have contributed to increases in output of black tea, and will continue to do so. World tea production is projected to increase from the 1987-89 annual average of 1 818 000 tonnes to 2 638 000 tonnes in 2000, implying an annual average growth rate of 3.2 percent. The Uruguay Round reduction in tariffs and other effects would induce a slightly higher growth in world production to 2 653 000 tonnes, or 0.8

percent above the basic projection.

Production in India is estimated at 966 000 tonnes in 2000, an average annual growth rate of 3.0 percent from the 1987-89 base. The Uruguay Round would have little effect on production growth in this country. Similarly, in Sri Lanka, the Uruguay Round is expected to induce production to increase by only 1 percent. Rather, most of the envisaged expansion is expected to result from recent economic reforms and the national plan for tea production expansion. Production by 2000 is projected to reach about 265 000 tonnes, compared to 216 000 tonnes during 1987-89.

Significant growth in production is also projected for all the other major tea producing countries. China and Indonesia would increase black tea production to 205 000 tonnes and 204 000 tonnes by 2000, respectively. The Uruguay Round would induce China to increase production by another 2.0 percent to 209 000 tonnes by 2000, and Indonesia by an additional 1.2 percent, to 206 000 tonnes.

Increases in both yields and planted area are likely to continue to support the strong growth in tea production in African countries. In Kenya small tea growers presently account for about two-thirds of planted area but for only half of the national production, suggesting that there is substantial potential for expansion. Output in Kenya is projected to increase at an average

annual rate of 3.0 percent to about 250 000 tonnes in 2000. Malawi, Tanzania and Zimbabwe are also expected to increase production significantly. The Uruguay Round effect would be minimal on African tea production. Additional output would amount to only 3 000 tonnes, with Kenya accounting for more than half of this amount.

Consumption. While growth in the tea consumption in developed countries has slowed down, demand for tea in developing countries has increased significantly as a result of growing income and population. This trend is likely to continue. World black tea consumption is projected to increase from 1 842 000 tonnes in 1987-89 to 2 548 000 tonnes by 2000. The Uruguay Round would stimulate a 1.4 percent increase in consumption to 2 582 000 tonnes, implying an annual growth rate of 2.9 percent.

Developing countries would account for the larger part of the prospective increase, with consumption rising from the 1987-89 average of 1 176 000 tonnes to 1 842 000 tonnes by 2000, an annual growth rate of 3.8 percent considering also the effect of the Uruguay Round on demand.

Black tea consumption in India is projected to continue to rise rapidly, reaching about 750 000 tonnes by 2000, an annual growth rate of 3.9 percent between

1987-89 and 2000. In other major markets for black tea such as Pakistan, the Islamic Republic of Iran and Egypt consumption is projected at 210 000 tonnes, 138 000 tonnes and 108 000 tonnes by 2000, respectively. The projections also suggest significant increases in the black tea consumption in other developing countries, such as Turkey where consumption would grow at an annual average rate of 2.4 percent to 180 000 tonnes.

By contrast in the developed countries, black tea consumption would increase only slightly. Consumption in the European Community is projected to remain stable in the next decade since somewhat higher purchases by Germany and France would counterbalance continued declines in the United Kingdom. Demand in the United States is projected to increase, though at a relatively low rate in the period to 2000. Since many developed countries impose no, or only small, restrictions on bulk and packaged black tea imports, the effect of tariff reduction on consumption is negligible.

In the area of the former USSR black tea consumption is projected to increase from 237 000 tonnes to 298 000 tonnes in 2000, with an annual growth rate of 1.9 percent over the period, based on increases in both domestic production and imports.

Exports. Net export availabilities are projected to be 1 325 000 tonnes in 2000.

China, India, Indonesia, Kenya and Sri Lanka, would account for nearly 70 percent of the total projected export availabilities. Other exporting countries, particularly Bangladesh, Turkey, Malawi, Tanzania, and Zimbabwe, are also expected to increase export availabilities significantly during this period. The increase in the demand for imports due to the implementation of the Uruguay Round should not substantially affect world market prices due to the existence of ample export availabilities projected for the year 2000.

Substantial growth in export availabilities is projected for African tea exporting countries. Their total availabilities would amount to 340 000 tonnes in 2000 reflecting an annual average increase of 3.9 percent from actual exports of 215 000 tonnes during 1987-89. Kenya which currently accounts for 65 percent of Africa's tea exports would increase its availabilities from 145 000 tonnes to 228 000 tonnes in 2000.

Most of the increase in the volume of export availabilities would originate in Asia. India, the world's largest tea producer and consumer, would continue to expand its exports while satisfying growing domestic demand. The projected export availabilities would be 216 000 tonnes in 2000. Projected export availabilities for Sri Lanka would amount to 246 000 tonnes in 2000, a 1.5 percent rate of annual growth above the average export volume during 1987-89.

China and Indonesia are also projected to increase export availabilities. China would continue the rapid growth of tea sales from the eighties, amounting to 180 000 tonnes by 2000 while Indonesia would attain a level of 195 000 tonnes.

Imports. The projected import requirements in 2000 are 1 227 000 tonnes which reflect an increase by 31 percent compared with the average actual black tea imports during 1987-89. Developing country importers would show a strong rise in demand, projected to reach 626 000 tonnes, over 50 percent above the average imports during 1987-89. Developed countries are projected to have small increases in imports of black tea. If the former USSR is excluded from this group, their imports by 2000 would be 413 000 tonnes, reflecting only a one percent annual growth rate from 1987-89 to 2000. In terms of quantity, the major importers are Pakistan, the area of the former USSR, the United Kingdom, Egypt and the United States.

Projected world black imports would increase by 2.9 percent to 1 263 000 tonnes by 2000 because of Uruguay Round tariff reductions and higher income. Most of the increase in imports would be in the developing countries, which account for more than 80 percent of the increase. Import requirements by Pakistan would rise from 204 000 tonnes to 210 000 tonnes in 2000.

Because of the significant expansion in consumption, almost tripling from 1972 to 1992, Pakistan would become the leading black importer in the world tea market in 2000.

The Uruguay Round is expected to boost imports into the Near East from 354 000 tonnes to 372 000 tonnes by 2000. Import demand in Egypt in 2000 would be 108 000 tonnes, 4.6 percent above its projected levels prior to tariff reduction. Imports by the Islamic Republic of Iran would be 58 000 tonnes, implying a 4.6 annual growth rate between 1987-89 and 2000.

The simulations suggest that imports of black tea into the United Kingdom, the United States and Canada would amount to 135 000, 88 000, and 12 000 tonnes in 2000, respectively. There would be no changes in their projected import requirements as a result of the Uruguay Round because no trade restrictions are imposed on trade in black tea by these countries. The simulated import requirements for other developed countries reveal slight increases as they liberalize trade. Thus, the reductions in tariffs would induce the developed countries as a whole to increase imports from 601 000 tonnes to 608 000 tonnes by 2000.

Conclusions. The projections suggest that increases will take place in both world black tea production and consumption by 2000. Developing countries would account for most of the growth in consumption with an annual rate of 3.8 percent, and their share in the world total would rise from 63 percent in 1993 to 71 percent in 2000. Since demand for tea in developing countries depends largely on income, economic development of these countries will continue to have a major impact on the world tea economy.

The projections also suggest the continuation of an imbalance in the international market. Before allowing for the effects of the Uruguay Round the projected surplus of export availabilities as compared to import requirements was about 100 000 tonnes by 2000. The impact of the Uruguay Round on the world tea economy is expected to be small. Despite some increase in import demand, world market prices are expected to continue to be mainly influenced by the existence of large excess export availabilities. However, the projected gap between exports and imports would be reduced to 78 000 tonnes, as trade is liberalized. In addition, trade liberalization may offer some new opportunities for tea

exporting countries. Most importing countries have tariffs on imports of small package black tea (not exceeding 3 kg) which have negatively influenced attempts to export value-added products. The Uruguay Round commitments mean that it should be possible for tea exporting countries to ship more small package black tea in the future and thus gain some value added.

Table 16: BLACK TEA - Commodity Balances, 1987-89 Average, 2000 Baseline and 2000 Uruguay Round Scenarios

Countries/Regions	1987-89 Average				2000 Baseline				2000 Uruguay Round				Growth Rates: 1987-89 to 2000 UN			
	Prod.	Import	Export	Cons.	Prod.	Import	Export	Cons.	Prod.	Import	Export	Cons.	Prod.	Import	Export	Cons.
	.....thousand tonnes.....												.....percent per year.....			
WORLD TOTAL	1819	858	842	1842	2639	1227	1325	2548	2653	1243	1341	2582	3.2	2.3	3.0	2.9
DEVELOPING COUNTRIES	1109	408	842	1134	2504	626	1325	1913	2521	455	1341	1842	3.3	4.0	3.0	3.8
Africa	272	22	215	88	629	27	336	91	632	26	380	92	3.9	2.4	3.9	2.6
Zambia	167		145	22	259		220	22	251		231	23	3.5		4.0	0.4
Malawi	37		37	0	45		66	1	45		46	1	1.6		1.5	
Zimbabwe	12		10	2	28		26	4	28		25	4	7.3		7.9	5.9
Tanzania	15		11	4	25		15	10	25		16	10	4.3		3.2	3.9
Tunisia		9		8		13		13		13		13		3.1		3.1
Zimbabwe	17		12	5	33		23	10	33		24	10	5.7		5.9	5.9
Latin America	50	13	37	13	71	21	39	40	71	21	40	41	2.0	4.1	0.7	10.0
Argentina	40		17	3	50		30	11	50		40	11	1.0		0.3	11.4
Chile		11		10		15		15		15		15		2.6		3.4
West East	192	264	8	812	280	354	20	614	280	372	20	631	3.2	2.9	7.9	3.4
Egypt	47		47	47	103		103	103	103		109	106		4.1		4.1
Iran Isl.Rep. of	49		34	84	80		55	135	80		58	136	4.2		4.6	4.2
Iraq		46		44		50		50		50		53		0.7		1.6
Turkey	143		8	135	200		20	180	200		20	180	2.8		7.9	2.4
Far East 1/	1108	110	882	883	1726	224	932	1070	2738	234	842	1078	3.2	8.5	2.7	2.8
Bangladesh	40		24	16	50		29	21	50		29	21	1.9		1.6	2.3
China	115		112	12	205		160	25	209		183	27	5.1		4.1	7.0
India	678		201	675	965		216	750	965		219	749	1.0		0.3	1.0
Indonesia	109		95	9	204		195	18	206		196	10	5.5		5.9	8.0
Sri Lanka	216		207	9	264		246	19	265		248	19	1.7		1.5	6.6
Pakistan		93		97		206		204		210		210		7.9		6.6
DEVELOPED COUNTRIES	100	512		666	132	601		721	132	606		190	1.6	0.0		0.0
North America	88			88	100			100		100		100		0.3		0.3
Canada	15			15	12			12		12		12	-1.8		-1.8	
United States	81			81	88			88		88		88	0.7		0.7	
Europe	252			251	253			253		257		257		0.2		0.0
Western Europe	215			217	216			219		219		219		0.2		0.0
EC	207			213	206			206		210		210		0.1		-0.1
Germany	17			17	24			24		24		24		2.9		2.9
Ireland	11			11	12			12		12		12		0.7		0.7
Netherlands	10			10	11			11		11		11		0.9		0.8
United Kingdom	196			181	135			135		135		135	-1.2		-1.5	
Other W. Europe	8			5	10			8		9		9		1.0		2.0
Eastern Europe	27			40	27			39		36		40		0.2		0.0
Former USSR	97	154		252	110	288		288	110	188		288	1.1		1.4	
Oceania	24			24	24			24		27		27		1.0		1.0
Other developed	12	23		36	22	34		34	22	36		36	5.2	3.8		4.1

1/ Including Oceania developing countries.

Bananas

Introduction. The world banana market is highly demand driven, and therefore, estimating demand is considered the crucial factor in projecting the global demand/supply balance. Import barriers are now minimal or non-existent in most of the major banana importing countries, except the European Community (EC), and this situation is expected to continue. For instance, bananas are imported free of any duty or quota into the United States and Canada, respectively the world's second and fourth largest banana import markets. In Japan, the third largest market, banana imports are currently subjected to an *ad valorem* tariff of 10 percent during the off-season for domestically produced fruits (mostly mikans) and 20 percent during the main marketing season (1 October to 31 March), under its GSP.

The only major development that would significantly affect demand at the world level, to the year 2000, is expected to occur in the EC, the largest global import market for bananas. Therefore the following analysis focuses on the new EC regime⁶. The new EC banana policy, which became operational on 1 July 1993, and is included in the Community's commitments under the Uruguay Round, grants preferential access to traditional banana supplying countries from Africa, Caribbean and Pacific (ACP)

countries, signatories to the Lomé Convention. It also allows for the continued support of domestic production. In order to measure the impact of its commitments under the Round, the EC banana import regime was analyzed using a policy simulation model. The likely demand of each member state was estimated by including the new policy variables in the simulation, as well as income and price elasticities.

Uruguay Round commitments on banana imports. The harmonization measures introduced by the EC during the de-compartmentalization of its market into a single regime, are included as a tariff quota. The tariff quota imposed from 1 January 1995 was 2.2 million tonnes⁹ for imports from third countries (mainly dollar bananas, but non-traditional ACP supplies also qualify) levied at 75 ECU per tonne, or approximately 10 percent of the average retail price of dollar bananas in 1993. An import duty of 850 ECU per tonne (or 750 ECU per tonne for non-traditional ACP supplies) is imposed on quantities imported above the tariff quota. The EC is committed under the Round to reduce this tariff to 680 ECU per tonne by 2000. The regime also includes a duty free quota of 857 000 tonnes for traditional ACP supplies and an EC quota of 854 000 tonnes that would qualify for domestic support. For imports from third

countries under the Framework Agreement annexed to the EC schedule of commitments, the global tariff quota of 2.2 million tonnes is divided up as follows: Costa Rica 23.4 percent, Colombia 21 percent, Nicaragua 3 percent, Venezuela 2 percent, Dominican Republic and other non-traditional ACP countries 90 000 tonnes (4.09 percent), and 46.51 percent for other third country suppliers.

Demand and supply prospects. World demand for banana imports is projected to grow by 1.4 percent annually, from 1993 to 2000. Although there is little change expected at the global level, 10.86 million tonnes under the Uruguay Round compared with 10.92 million tonnes projected in 1992 (without the changes due to the Round), a significant reduction is expected in the imports of the EC (more than 300 000 tonnes). This decline in volume in the EC would be only partially offset by increases in other markets.

Import requirements by developed countries are projected to increase by 0.9 percent annually, mainly due to the continued increases in traditional importing countries, while among developing countries imports are projected to remain small (10 percent of the global total), with an annual growth rate of 2 percent. Tariffication leading to lower tariffs would largely be responsible for this increase.

Taking into account policy initiatives such as the Framework Agreement on Bananas, export availabilities are expected to keep pace with demand at a growth rate of a little more than 1 percent annually to reach 11.3 million tonnes by 2000. This compares with a projection of 12.4 million tonnes made in 1992. The apparent surplus of 0.5 million tonnes (4 percent of exports) would be accounted for by quantities in transit, shrinkage and waste.

Impact of the Uruguay Round. As mentioned earlier, apart from the EC banana regime, the impact of the Uruguay Round on international banana trade would be small. The duty free banana import regimes in the United States and Canada would continue. In Japan, MFN tariff rates will be cut from 40 and 50 percent for the two periods of the year to bound rates of 20 and 25 percent, respectively, by 2000. However, major supplying countries, Philippines and Ecuador, qualify for the lower GSP rates of 10 and 20 percent being imposed now²⁰. It is expected that the current lower preferential tariff rates will continue to be applied to the bulk of its imports.

Other importing countries, which collectively accounted for about 25 percent of global imports in 1993, generally have tariffed their import regimes. Although a few of these importing countries have a potential for a larger growth in demand,

concessions made under the Uruguay Round are not considered to be large enough to have a major impact. For instance, when the Republic of Korea began phasing out its quantitative restrictions in 1990, imports surged from 21 000 tonnes in 1990 to 314 000 tonnes in 1991. However, as tariffs remained high, levels subsequently fell to 146 000 tonnes by 1993. Under the Uruguay Round the Republic of Korea is committed to a base rate duty of 100 percent being bound at 90 percent in 2004.

In the EC, the 850 ECU duty levied on quantities imported above the tariff quota, is equivalent to almost 60 percent of the average retail price of dollar bananas in 1993. At this price level significant incremental increases in imports are not envisaged. Furthermore, in order to qualify for additional dollar banana shipments importers are required to obtain an equivalent amount from ACP/EC origins. Hence, the resultant increase in retail prices and fear of possible substitution with other fruits, are expected to prohibit growth in consumption. Projected levels of dollar, ACP, and EC banana imports by 2000 are indicated in Table 17.

Consumers in Germany, the largest consuming area in the EC market would be the most affected by the new regime, going from a duty-free arrangement to a tariff level equivalent to 10 percent of the average import price of dollar bananas in 1993.

Consumers in other member states are expected to gain, slightly in Belgium, Luxembourg, Ireland, Denmark, and Netherlands, because of the lower tariff level (10 percent in the new regime compared to the 20 percent previously), and more substantially in the United Kingdom, France and Italy where imports were predominantly of ACP and EC origins under the old regime.

Producers in the EC and ACP countries are expected to benefit by US\$22 per tonne and US\$25 per tonne, respectively, from the new regime, while producers in the dollar countries would receive US\$5 per tonne less for their bananas than the average price received during 1993. It must be mentioned that the simulation assumes that the ceiling placed on dollar imports in the EC would continue to lead to a diversion of supplies to other world markets, resulting in a decrease in prices. However, a realignment in the production sector or expansion in new markets could easily change this expectation.

Table 17: BANANAS - Commodity Balances, 1987-89 Average, 1993 Actual, 2000 Baseline and 2000 Uruguay Round Scenarios

Countries/Regions	1987-89 Average Import	1987-89 Average Export	1993 Baseline Import	1993 Baseline Export	2000 Baseline Import	2000 Baseline Export	2000 Uruguay Round Import	2000 Uruguay Round Export	Growth Rates: 1987-89 to 2000 UR Import	Growth Rates: 1987-89 to 2000 UR Export
	.....thousand tonnes.....						.....percent per year.....			
WORLD TOTAL	7628	8051	10104	10182	10921	12392	10862	11240	2.8	2.8
DEVELOPING COUNTRIES	589	7364	1244	10050	1425	11546	1425	10478	1.4	2.1
Africa	14	205	17	287	18	209	18	248	2.1	5.8
Cameroon		48		120		101		133		8.9
Côte d'Ivoire		86		173		125		192		6.9
Latin America	144	4120	444	8514	380	10309	380	8745	2.9	3.1
Argentina	91		213		110		110		1.4	
Colombia		919		1400		1800		1454		3.9
Costa Rica		1165		1933		1880		1904		4.2
Ecuador		1522		2403		2800		2503		4.2
Guatemala		371		427				437		1.4
Honduras		474		400		1200		831		-0.5
Jamaica		25		77		136		87		7.4
Panama		688		708		840		730		0.5
Former Windwards Is.		237		244		340		282		1.5
Near East	248		523		507		507		4.1	
Saudi Arabia	144		350		250		250		3.6	
Turkey	8		113		105		105		21.4	
Far East	128	474	244	1235	420	1024	420	1285	14.1	2.3
Korea Rep.	14		144		470		470		14.0	
Philippines		831		1144		660		1240		2.4
Other Developing 4/		3		2		2		2		-2.2
DEVELOPED COUNTRIES	7237	741	8860	722	4498	844	9437	788	2.2	0.4
North America	3014		3402		3535		3780		1.8	
Canada	292		400		375		375		2.1	
United States	2724		3203		3200		3405		1.4	
Europe	3341	747	4234	733	4900	844	4448	788	2.8	0.4
EC	3078	147	3841	732	4443	844	4131	784	2.5	0.4
Belgium	92		100		99		111		2.4	
France 1/	452	309	515	278	494	163	564	309	1.9	0.0
Germany	812		1040		1424		1182		3.2	
Italy	379		392		419		434		1.1	
Netherlands	123		140		141		178		3.1	
Portugal 2/	85	38	138	40	153	43	153	44	5.0	1.2
Spain 3/	347	400	420	400	442	440	442	420	1.6	0.4
United Kingdom	394		524		532		544		3.8	
Japan	770		412		843		911		2.0	

1/ Exports from Guadeloupe and Martinique

2/ Exports from Madeira

3/ Exports from Canary Islands

4/ Oceania

Hides and skins

Supply. Global production of cattle hides and calfskins is projected to increase at 0.8 percent annually, the same rate of growth as recorded in the eighties, to reach more than 5.6 million tonnes by the year 2000. Although the overall effect of the Uruguay Round Agreement on bovine production is expected to be very small at the global level, it is likely to be important for some developed and developing countries where higher international prices for meat and for raw hides under the Round should sustain an expansion in bovine output. The faster growth in the developing countries compared with the past decade would be partly offset by a contraction in the developed countries.

The developing countries would continue to have more than two-thirds of the world's cattle, and are expected to increase their share of the world supply of cattle hides. The share of developing countries' hide output in the world total, which was below 40 percent in the late eighties, has been projected to expand to almost 50 percent by the year 2000. This reflects steadily improving, albeit low, productivity and continuing programmes to raise the standards of animal husbandry, and improve utilization of livestock products and techniques of flaying and curing. A more efficient collection of hides from fallen animals, especially in the Far East, and policies geared to improve off-

take rates, should also contribute to the additional supply of hides.

Greater growth in the output of bovine hides and skins is expected in Africa mainly under the pressure of rising demand for ruminant meat. Asia is predicted to continue to be a major source of hides in 2000, with its share increasing to about 20 percent of global production. In the Latin America and the Caribbean region, dynamic growth in meat production is expected to sustain a rapid increase in the output of hides. In total, the developing countries are expected to expand their output of bovine hides and skins by 2.8 percent annually to reach 2.8 million tonnes by the year 2000.

The slaughtering of cattle in the **developed countries** has been projected to decline, partly as a result of a contraction in herds. As a result, the domestic supply of bovine hides and skins would also fall, by about 0.8 percent annually to below 2.9 million tonnes. Output in North America and Oceania is expected to recover as higher international prices for meat resulting from the Uruguay Round should boost bovine meat production and the decline in hides and skins output, which characterised the past decade, should be halted. By contrast, growth rates for meat production in western Europe are expected to be curbed by policies to limit livestock product surpluses and, given the continuing shift towards white meat consumption at the expense of bovine

meat, cattle slaughterings are likely to decline and consequently in hide output is projected to recede from the levels of the late eighties. In eastern Europe and the area of the former USSR, structural changes and the reduction of consumer subsidies resulted in a contraction in demand for livestock products in the early nineties. Consequently, as cattle herds are expected to be reduced, slaughterings have been projected to recede from the levels reached in the late eighties and hide output is forecast to decline by 2.5 percent annually.

Demand for leather goods. Global demand for leather and leather products is projected to continue to expand in the nineties under the influence mainly of growing incomes and to a lesser extent of reductions in import tariffs for leather and leather footwear in major consuming countries. Trade weighted average tariffs in the developed countries, are likely to fall from 4.6 to 3.5 percent for leather and from 8.7 to 7.3 percent for leather products. While growth in demand is likely to be at a slower rate than in the eighties, it is projected to exceed the growth of production, pointing to some firming of prices. However, the projected rate of growth of demand varies between regions. This reflects different factors influencing leather usage such as consumer tastes and lifestyles. Globally, footwear is likely to remain overwhelmingly the principal end-use

for hides and skins and, consequently, demand prospects for leather shoes would continue to determine to a large extent the demand for hides and skins.

In the developing countries demand for leather and leather goods is projected to rise in the nineties, under the impact of the Uruguay Round, at a faster rate than in the previous decade. Demand growth will be higher than in the developed countries, where it has been projected to slow to below 0.5 percent annually. Nevertheless, the developed countries will continue to account for more than 60 percent of global leather consumption in the year 2000. In particular, consumers in the more affluent countries are expected to continue to place increased emphasis on the quality of products. As a result, demand for leather goods at the fashionable, top quality end of the market is likely to increase in the developed countries, particularly in North America and in those western European countries with long established tanning and leather industries.

Demand for raw hides and skins. The tanning and leather products industry of the developing countries has undergone considerable change in the last two decades. The amount of raw hides and skins produced and exported from these countries has been reduced, and increasing quantities of finished leather are being converted into leather garments, footwear and other leather

manufactures. The growth in tanning and manufacturing capacity of some developing countries is expected to continue in the nineties, most notably in India, China, Pakistan and other countries with fast growing economies in the Far East and Latin America. The reduction of tariffs in consuming countries under the Uruguay Round for semi-finished and finished leather products, of about 20 and 15 percent respectively, would also contribute to this expansion. However these exporting countries are considered unlikely to replicate the fast growth rates achieved in the past decade, when their tanning and leather manufacturing capacity was in its infancy and provided greater scope for rapid expansion.

The volume of leather processing in the developed countries has declined in recent decades in the face of competition from developing countries with lower production costs and often less restrictive environmental laws and regulations. However, tanning and leather manufacturing capacity, especially in the shoe sector, is likely to expand in eastern Europe, where costs of production are lower than in western Europe.

Trade. As a result of the strong increase in processing in the developing countries over the past 20 years, trade between the developing countries has increased, with some, particularly in the Far East, importing raw material and exporting leather products.

In other cases, developing countries which produce raw hides and skins are increasingly processing this material to at least a partly finished stage, before export. At the same time, the processing activity in the developed countries has declined markedly, as imports are increasingly at a higher level of processing. Among the developed countries, the net exports of North America and Oceania are the result of a large volume of exported raw material, partly offset by imports of leather products such as shoes.

The decline of trade in **bovine** hides, skins, leather and leather products between developing and developed countries was reversed during the eighties. In the late seventies, the developing countries were net importers from the developed countries. However, by the late eighties, the developing countries had become net exporters of leather and leather products, and their net exports are expected to expand by 2000. Reduced customs duties for leather and leather products in the European Community and in other major consuming countries would further sustain this trend. In particular, exports from Latin America and Africa are projected to expand over the nineties. A number of countries in the Far East import raw material for processing and re-export, and this trade is also likely to expand. Among the developed regions, exports of hides from North America are projected to decline during the nineties, but

the region will remain a major net exporter. Import requirements by the European Community are projected to continue to increase.

Contribution of the Uruguay Round Agreement to the projections. The impact of the Uruguay Round on projected global hides and skins production is slight. Only a small fraction of the total expected increase in global output of hides and skins in the period to 2000 is attributable to the Uruguay Round, although for some countries it is expected to have a more significant impact. New Zealand, Australia and United States are expected to increase their production largely reflecting increases in meat prices.

By contrast, in many European countries the effect will be negative.

Import demand for hides and skins is derived from market opportunities for leather and leather products and the existence of the processing capacity in the exporting countries. Growth in processing and manufacturing of hides and skins is proceeding more rapidly in developing than in developed countries. The Uruguay Round is expected to result in further increases in processing and manufacturing activity in these countries and this would be reflected in significant increases in trade by the year 2000. Imports of raw bovine hides by the developing countries are projected to

increase by 12 percent while their exports of leather and footwear are projected to increase by about 30 percent each. These increased volumes combined with higher international prices are expected to lead to a considerable increase in the value of international trade of bovine hides and skins, leather and leather products. Developing countries are expected to add US\$43 million and US\$350 million to exports of leather and footwear respectively, although these will be partially offset by increases in imports of raw materials. Developed exporters are likely to increase their total export revenues from hides, leather and leather footwear by over US\$60 million.

Table 18: HIDES AND SKINS - Commodity Balances, 1987-89 Average and 2000 Baseline, 2000 Uruguay Round Scenarios

Countries/Regions	1987-89 Average				2000 Baseline				2000 Uruguay Round				Growth Rates: 1987-89 to 2000 UR			
	Prod.	Import	Export	Cons.	Prod.	Import	Export	Cons.	Prod.	Import	Export	Cons.	Prod.	Import	Export	Cons.
.....Thousand tonnes.....																
WORLD TOTAL	5159	9291	9291	5121	5627	4952	5110	5379	5452	5027	5129	5548	0.9	1.2	1.2	0.7
DEVELOPING COUNTRIES	2005	1402	1459	1998	2806	1489	2284	2005	2790	1949	2240	2192	2.8	3.8	3.7	1.0
Africa	217	24	74	178	272	39	102	208	275	39	100	209	2.0	0.0	2.9	1.2
Latin America	872	179	958	505	1048	211	981	879	1019	288	878	929	1.2	9.0	3.3	0.8
Argentina	277	0	130	107	217	3	116	95	222	2	138	96	-0.5	-	-	-1.0
Brazil	294	55	121	78	311	117	382	45	284	160	291	54	1.2	9.3	4.8	-3.0
Colombia	53	1	31	82	61	7	21	89	60	10	22	47	1.3	20.0	6.0	0.9
Mexico	167	61	9	220	182	52	7	227	165	70	7	229	-0.3	1.1	-2.2	0.3
Uruguay	29	8	29	9	28	11	42	5	29	11	44	5	1.3	2.0	1.2	2.0
Near East	182	57	48	192	281	42	94	230	289	58	78	289	2.9	-0.1	4.0	2.9
Egypt	45	3	0	44	29	31	0	90	39	21	0	80	-1.3	17.7	0.0	1.9
Far East	684	1319	889	939	1122	1187	1275	935	1122	1279	1380	1017	4.2	2.1	6.0	0.7
China	114	242	110	224	195	179	201	242	190	220	296	294	8.9	-0.4	5.8	2.3
Hong Kong	3	770	181	72	3	452	381	157	2	449	101	150	-3.9	1.4	0.0	4.3
India	244	6	67	293	419	4	87	334	417	2	84	333	1.8	-0.3	2.1	1.4
Korea Rep.	11	643	247	207	9	528	521	15	8	545	543	11	-2.7	1.8	6.8	-31.9
Pakistan	54	2	51	6	87	2	73	19	86	13	78	22	3.7	18.5	1.5	10.9
Other developing	66	18	16	68	81	8	31	57	82	12	25	70	5.2	-3.4	9.0	2.1
DEVELOPED COUNTRIES	3154	1949	2932	3123	2821	3369	1826	3373	2862	3377	2896	3356	-0.8	1.3	-0.2	0.5
North America	1026	504	925	804	945	509	807	668	979	534	849	654	-0.4	0.3	-0.7	0.3
Canada	83	46	89	40	71	56	94	33	71	56	94	13	-1.3	1.7	0.5	-1.5
United States	941	460	836	565	874	453	713	635	908	478	755	621	-0.3	0.3	-0.9	0.8
Europe	1029	2101	1574	1559	972	2303	1611	1694	963	2295	1577	1692	-0.9	0.7	0.0	0.8
Western Europe	850	1787	1489	1149	803	1959	1526	1219	795	1952	1692	1254	-0.8	0.7	0.0	0.7
EC	792	1869	1340	1121	740	1950	1820	1190	756	1940	1190	1256	-0.4	0.8	0.2	0.6
France	191	185	203	142	175	202	214	163	176	198	235	119	0.7	0.6	1.2	-0.2
Germany	192	205	228	269	148	313	219	293	146	310	219	260	-2.3	8.7	-0.5	-0.5
Italy	142	283	377	327	138	547	312	393	139	585	300	425	-0.1	0.3	-1.9	2.2
Netherlands	94	132	148	39	15	116	116	35	15	116	116	34	-2.0	0.2	-0.7	1.7
Spain	45	125	90	80	44	206	90	160	44	201	91	154	-0.2	9.1	0.1	5.8
Portugal	11	75	38	48	11	94	49	58	11	93	51	54	-0.0	1.8	2.4	0.8
United Kingdom	89	139	124	102	70	220	105	185	69	215	105	179	-2.0	3.7	-1.3	4.7
Eastern Europe	179	219	88	909	199	244	87	936	198	243	85	428	-0.5	0.7	0.0	0.2
Former USSR	802	68	99	773	803	249	1	830	584	219	1	929	-2.9	11.8	-32.6	0.8
Oceania	200	28	202	29	200	34	198	38	213	31	214	22	0.4	2.2	0.5	2.8
Australia	155	27	181	21	158	31	162	27	165	34	174	24	0.5	1.9	0.9	1.4
New Zealand	95	1	41	5	42	1	75	6	46	3	40	9	0.2	7.2	-0.1	4.4
Other developed	100	296	124	212	123	274	210	194	129	277	225	182	2.1	1.0	9.4	-1.2
Japan	94	233	110	167	34	257	114	176	34	254	121	167	-2.0	0.7	9.9	0.9

IV. IMPACT BY REGION

The implications for countries of the revised outlook for agricultural commodity markets following the implementation of the Uruguay Round by the year 2000 stem from the changes in market prices, the new market opportunities for their exports and the extent to which external market signals are transmitted back to producers and consumers.

Before turning to the impact on the developing countries, a few observations may be made about the effect of these changes in markets in the **developed countries**. For the developed countries as a whole, with or without the Uruguay Round, a sharp slowdown is foreseen in growth of production and consumption of the main agricultural commodities. An even sharper slowdown is envisaged for trade. The reductions in growth are right across the board. The effect of the Uruguay Round is to attenuate the decline marginally (Table 19a), where allowance is also made for products not covered, which are assumed to grow at the same rate.

The main change in western Europe is a sharp increase in its net imports of the main agricultural commodities from a net import level (imports f.o.b.) of US\$4.0 billion in 1987-89 to net imports of US\$13.4 billion by the year 2000, including a substantial increase due to the Uruguay Round. The

Region would be a smaller exporter of cereals, oilseeds, milk and sugar, while import volumes are expected to grow for cereals, fats and oils, some meat and tropical products.

For Eastern Europe and the area of the former USSR, there is projected to be a sharp fall in the import bill for the main agricultural commodities, but exports would also be less. The resulting import deficit would shrink from US\$10.5 billion to US\$7.8 billion. The drop in the import deficit is mainly on account of the projected fall in consumption of cereals, milk and some meat. As regards the other net importing region "other developed" (effectively mainly Japan), the net import deficit on account of the principal agricultural commodities is projected to rise from US\$12.5 billion to US\$21.2 billion. Big increases in imports of meat, other basic foodstuffs and tropical products are envisaged with or without the Uruguay Round, but the Uruguay Round will significantly increase expenditures on imports of the main agricultural commodities.

The major beneficiaries among the developed countries are North America, the net exports of which rise from US\$15.0 billion to US\$22.9 billion, and Oceania with net exports growing from US\$11.6 billion to

US\$18.1 billion. Both regions would gain from higher exports of cereals, fats and oils, meat and milk.

Turning now to the rest of the world, most **African** countries tend to be importers of food, particularly wheat, rice and dairy products and exporters of tropical products such as cocoa, coffee, fruit and some agricultural raw materials. Most of these countries are least developed (28 out of over 50) and low income food deficit countries (43) and have preferential access for their exports under arrangements such as GSP or the Lomé Convention. The increase in the prices of the temperate zone food commodities covered in this study point to a substantial rise in import bills. Assuming the other commodities not covered (another 5 percent) behave in the same way the agricultural import bill could rise from US\$8.4 billion (f.o.b. basis) in 1987-88 to US\$14.9 billion in the year 2000, with an estimated 17 percent of the rise due to the Uruguay Round. The increase is mainly an account of changes other than the Uruguay Round (particularly population growth). The effect on production is seen to be marginally positive at best, while consumption would fall slightly. The net result of generally small declines in the volume of imports would be outweighed by the rise in prices due to the Uruguay Round. In addition, the

Table 19a - Developed countries: projected agricultural trade balances to the year 2000

	1987-89	2000 Base Run	2000 with UR effects
<i>US\$ billion</i>			
Imports			
Selected Commodities ^a	105.6	119.6	129.7
Other	103.1	116.8	126.6
Total	208.7	236.4	256.3
Exports			
Selected Commodities	105.2	120.4	129.1
Other	93.3	106.8	114.5
Total	198.5	227.2	243.6
Balance (Exports-Imports)	-10.2	-9.2	-12.7

^a Selected commodities are items listed in Table 1.

Table 19b - African developing countries: Projected agricultural trade balances to the year 2000

	1987-89	2000 Base Run	2000 with UR effects	
<i>US\$ billion</i>				
Imports				
Selected Commodities	7.8	12.9	13.8	+0.1 ^a
Other	0.6	1.0	1.1	
Total	8.4	13.9	14.9	+0.1 ^a
Exports				
Selected Commodities	7.1	9.4	10.2	
Other	2.3	3.0	3.3	
Total	9.4	12.4	13.5	-0.2 ^b
Balance (Exports-Imports)	1.0	-1.5	-1.7	

^a Estimated effect of loss of export subsidies on the imports of the subsidy receiving countries.

^b Estimated loss of the potential value of preferences provided by the major preference giving countries.

Uruguay Round will lead to lower export subsidies on imports of wheat and livestock products, which could boost import bills by perhaps something under US\$100 million (Table 19b).

The per caput consumption levels of basic foodstuffs by the year 2000 would remain precarious, with increases in rice, maize, oilseeds and poultry and reductions in other coarse grains, beef, sheepmeat and milk. The Uruguay Round would hardly change this pessimistic scenario.

The possibilities for increased exports are expected to arise for maize, millet/sorghum, fats, oils and oilmeals among the food commodities and all the tropical products covered. Overall the value of agricultural exports from Africa could rise from US\$7.1 billion in 1987-89 to US\$10.2 billion in the year 2000. The effect of the Uruguay Round would be to add US\$800 million to the value of exports, just under a quarter of the overall growth. Also to be taken into account, however, is the possible loss of the potential value deriving from reduced preferential markets - a loss that may be estimated at some US\$200 million.

The net result, therefore, for the African developing countries is that import bills of the main agricultural commodities could rise by the year 2000 from their level in the late eighties by US\$6 billion plus US\$0.1 billion loss due to reduced export subsidies while export earnings from the main agricultural

commodities (but excluding many important ones) could rise by US\$3.1 billion less the loss of potential preferences of US\$0.2 billion. On any interpretation this is not a very satisfactory outcome. If allowance is made for the agricultural commodities not covered, assuming their values to grow at the same rate as the commodities covered, African developing countries would move from an export surplus of US\$1 billion in 1987-89 (f.o.b. basis) to a deficit of US\$1.5 million in the year 2000 including *inter alia* the effects of the Uruguay Round.

The situation varies from sub-region to sub-region. Thus **North Africa** is a food importing area, its agricultural exports mainly being horticultural products and olive oil. The countries in this sub-region should, therefore, be faced with the prospect of slightly rising prices of their agricultural imports but market access for their exports may face some problems particularly for tomatoes and sweet oranges.¹¹ The changes should, however, prompt review of the appropriate balance between food and export crops.

In **West and Central Africa**, most countries are importers of grains and livestock products but exporters of tropical beverages, some oilseeds, some agricultural raw materials and tropical fruit. There is also a significant trade in live animals within the region. A substantial part of their exports are made under preferential arrangements with

Europe. The higher food prices and possible rather limited gains and even possibly losses for some of their major export commodities should encourage these countries to look afresh at the possibilities of expanding their food crop sector. This conclusion was also reached by an FAO/ECOWAS Expert Consultation on International Policy Change and Agricultural Trade in Africa South of the Sahara.

In **Eastern Africa**, most countries are importers of cereals while they export coffee, tea, fibres and hides/skins, and in some cases horticultural products, while Mauritius is a large exporter of sugar and has a considerable textile and clothing industry. The rise in the import price of cereals and oilseeds should give a stimulus to their production providing the increases are passed on to the farmers. Although not covered in this study, the market for textile fibres could also expand somewhat. In the case of hides and skins much depends on tapping the potential of this sub-region by improving the quality of the product. Production of hides and skins should expand substantially if the forecast rise in meat production takes place.

Southern Africa is usually more self-sufficient in food but has suffered from civil strife and droughts which have led to large-scale imports in several recent years. Under normal circumstances, however, the region should be largely self-sufficient and an

exporter of a wide range of agricultural products such as tobacco, sugar and fibres but also fruit, vegetables and coffee. The landlocked nature of several of these countries limits the extent that world price changes can affect farmers' decisions even when they are passed on in full. A combination of fostering intra-regional trade and relying on high value products for export to world markets will continue to be among the policy options to be considered.

The upshot of these changes is that most African countries could well have to give a greater weight to a strategy of (a) increasing food production and (b) of promoting diversification for their export crop sector. The rise in the world prices and the decrease in export subsidies over the period to the year 2000 offers an opportunity to African countries to pass on the increase in prices to the producers of cereals, including part or all of the permissible degree of protection at least for the period of implementation of the Uruguay Round. At the least, African developing countries could consider the feasibility of "capturing the surplus" for their farmers by raising farm prices to offset the domestic price depressing effect of the remaining export subsidies within the limits set by the tariff bindings included in their schedules. The extent of the increase should, however, be worked out on a country by country basis taking into account changes in other sectors.

As regards the other sectors it will be important for African countries to improve the quality and competitiveness of products for which new market opportunities may open up in for example some horticultural products, oilseed products and hides and skins. In order for countries to diversify their exports it is necessary for the right enabling environment to be developed and for adequate international support to be given for project development. However, it must be remembered that the bulk of Africa's agricultural exports are likely to come from traditional export crops, particularly coffee, cocoa, sugar and rubber, which together will account for well over half of total agricultural exports.

As regards **Latin America and the Caribbean**, only one country is among the least developed though 9 are low-income food-deficit countries. The region as a whole is a net importer of cereals, even though several countries in the region are exporters, particularly Argentina and Uruguay. The higher prices of most agricultural commodities are projected to lead to a substantial rise in import bills both of food and non-food agricultural commodities, with particularly large increases in wheat, rice, fats and oils, bovine meat, dairy products and sugar. Most of the increase in imports to 2000 is due to factors such as growth of income and population. However, the effect of the Uruguay Round is to boost these

imports by another US\$0.9 billion, almost entirely on account of higher prices as import volumes are not expected to change significantly and, if anything, could be smaller than otherwise (Table 19c).

Reflecting the relative rapid growth in per caput incomes, consumption per head is expected to rise for a broad range of commodities particularly poultry, fats and oils, some other meat, and the feed use of grains. The Uruguay Round effect on consumption is small; higher incomes and higher prices appear to have offsetting effects.

The most encouraging aspect of the revised projections concerns export earnings, which are expected to grow substantially by the year 2000. For the commodities covered in this study exports could grow by 3.8 percent a year from their base level in 1987-89. Assuming the exports of other agricultural commodities to grow at the same rate, the total value of agricultural exports for the region would reach US\$46 billion compared with US\$31 billion in the base period. The Uruguay Round would be expected to boost such exports by US\$3.0 billion, even allowing for a loss of the potential value of preferences of around US\$0.3 billion. Significant gains are expected for the exports of grains, oilseeds, oilmeals and some livestock products by Argentina, Brazil and Uruguay. By contrast, the export of bananas is projected to be

Table 19c - Developing countries in Latin America and the Caribbean: Projected agricultural trade balances to the year 2000

	1987-89	2000 Base Run	2000 with UR Effects	
<i>US\$ billion</i>				
Imports				
Selected Commodities	9.9	15.0	15.8	
Other	0.6	0.9	1.0	
Total	10.5	15.9	16.8	
Exports				
Selected Commodities	25.1	34.4	37.1	
Other	5.8	7.9	8.5	
Total	30.9	42.3	45.6	-0.3a
Balance (Exports-Imports)	+20.4	+26.4	+28.5	

^a Estimated loss of the potential value of preferences provided by the major preference giving countries.

Table 19- Developing countries in the Near East: Projected agricultural trade balances to the year 2000

	1987-89	2000 Base Run	2000 with UR Effects	
<i>US\$ billion</i>				
Imports				
Selected Commodities	13.4	19.2	20.4	
Other	4.4	6.3	6.7	
Total	17.8	25.5	27.1	+0.1 ^a
Exports				
Selected Commodities	1.3	1.5	1.6	
Other	5.4	6.2	6.6	
Total	6.5	7.7	8.2	
Balance (Exports-Imports)	-11.3	-17.8	-19.0	

^a Estimated effect of loss of export subsidies on the imports of the subsidy receiving countries.

lower than trend, although still higher than in 1987-89, as is poultry, reflecting the rapid growth of consumption.

The net result of these developments is the expectation that the positive agricultural export balance of US\$20 billion that the region obtained in 1987-89 should expand to an estimated US\$29 billion in 2000, with US\$2.1 billion of the increment ascribed to the Uruguay Round.

At the sub-regional level, in South America most countries are significantly involved in agricultural trade. The sub-region includes both temperate zone countries that import tropical products and export cereals, livestock products, oilseeds and fruit and vegetables, and more tropical region countries which export a wide variety of products such as coffee, cocoa, fruit, oilseeds and cut flowers, and import grains and dairy products. The main feature of this sub-region is the highly diversified structure of trade - often countries both import and export related commodities. Overall, the sub-region stands to make considerable trade gains but some of the net food importers face increased food bills for which assistance may be required.

Central America is an important exporter of coffee, cocoa, cotton, fruit, sugar and an importer of some basic foodstuffs such as cereals, dairy products and meat. The production of some cereals e.g. maize, could no doubt be increased, but not wheat.

Overall there would appear to be some improved trade opportunities to be realized but no major shifts. The main impact will be higher prices for imported cereals, dairy products and meat, which will have an adverse impact on consumption and nutritional status.

The Caribbean sub-region depends extensively on food imports, the prices of which will rise, and relies on a rather limited range of agricultural exports mainly sugar, fruit, tobacco and beverages, a significant part of which are exported under preferential arrangements, which are estimated to lose part of their value. For this sub-region the importance of the Decision on the interests of the net food importing developing countries is to be underscored, as the net impact of the Agreement will be decidedly negative. Also in view of the land shortage in these countries, it will be necessary for them to seek fresh opportunities to diversify their agricultural production towards high value products for export and to supply their expanding tourist industries.

The **Near East** region is predominantly a net importer relying extensively on food imports and having a variety of horticultural and cotton exports. Only two countries are in the least developed group. However, only a minority of countries in the region are GATT/WTO members and although non-members will be affected by changes in international markets, their own policies will

not necessarily change. The rise in the prices of basic foodstuffs should give all the countries in this region the chance of passing on the higher prices to their farmers and hence giving a fillip to output, but they are likely to remain large net importers even though unit prices will be significantly higher. For horticulture there are problems of market access; although some improvements have been made by importing countries, in other cases there could be reduced possibilities and several countries are likely to lose part of the value of their preferential arrangements.

The cost of agricultural imports is projected to rise substantially from US\$18 billion in 1987-89 to US\$27 billion 2000 (Table 19d). The increase is particularly large in basic foods, the bill for which could rise by US\$5.2 billion or 46 percent. The growth is due partly to fairly large volume increases of products for which little is produced domestically and partly to the impact of higher prices.

Consumption per head is not expected to increase greatly - in most countries it is already at relatively high levels - but there are expected to be some changes: consumption per head of cereals and milk is projected to fall but utilization of feeds is projected to rise as is that of fats and oils and to a lesser extent meat.

The region earns relatively little from agricultural exports and the bulk of this is in

products not covered by these projections (fibres and horticulture) and, therefore, the value of the assessment is somewhat limited. However, it is likely that agriculture will still remain a relatively minor contributor to foreign exchange earnings for most countries. Accordingly the gap between agricultural exports and imports is forecast to widen considerably from US\$11 to US\$19 billion by the year 2000. One of the interesting possibilities that may, however, open up is the increased scope for intra-regional trade if there is a growing move towards eliminating non-tariff barriers.

The Far East overall is a net exporter of rice, fats and oils and tropical products, and a net importer of other cereals and milk products. Particularly large increases in imports are envisaged for feed stuffs for the thriving livestock sector where output is expected to grow by over 5 percent a year. A large increase is also envisaged in imports of dairy products and sugar. Overall, agricultural imports are projected to expand by 56 percent (Table 19c) to reach US\$47 billion. The effect of the Uruguay Round itself is to boost the agricultural import bill by US\$4.1 billion. The generally rapid economic growth in this region that underpins the growth in imports would be boosted further by the Uruguay Round. As a result the per caput consumption of agricultural commodities is projected to

Table 19c - Developing countries in the Far East: Projected agricultural trade balances to the year 2000

	1987-89	2000 Base Run	2000 with UR Effects	
----- US\$ billion -----				
Imports				
Selected Commodities	24.7	35.2	38.5	+0.1 ^a
Other	5.4	7.7	8.4	
Total	30.1	42.9	46.9	+0.1 ^a
Exports				
Selected Commodities	25.9	38.4	40.9	
Other	9.1	13.5	14.4	
Total	35.0	51.9	55.3	-0.3 ^b
Balance (Exports-Imports)	+4.9	+9.0	+8.0	

^a Estimated effect of loss of export subsidies on the imports of the subsidy receiving countries.

^b Estimated loss of the potential value of preferences provided by the major preference giving countries.

grow, particularly for meat, fats and oils and feeds, and all the tropical products covered.

The sharp growth in consumption is not expected to harm agricultural exports, the growth of which is projected at US\$20 billion between 1987-89 and 2000. Notable export increases are expected in rice (+US\$2 billion), bovine hides and skins (+US\$3 billion), fats and oils (+US\$4 billion), poultry, cocoa, sugar and rubber (+US\$1 billion). Among the commodities not covered it is likely that cassava will suffer a reduction but cotton could be boosted. The effect of the Uruguay Round is estimated to boost export earnings by around US\$3 billion.

Overall the surplus on the balance of agricultural trade is expected to improve from US\$5 billion to US\$8.0 billion. However, in this region in particular, increased absorption of agricultural raw materials, from domestic or imported sources for processing industries, is reflected in rapid growth of exports of semi-processed or processed manufactured goods.

Looking at the sub-regions, **South Asia**, where four countries are least developed, is largely self-sufficient in basic cereals although a net exporter of rice and a net importer of wheat. It is also a net importer of oilseeds and dairy products but a major exporter of a number of agricultural commodities such as tea, spices, cotton, jute, tobacco and fruit. On balance the region

may be a small loser in net trade in the basic foodstuffs except for possible gains in the rice sector although the concentration of gains in rice would favour Japonica rice exporters more than the Indica rice exporters of this sub-region. Bigger gains may be expected from textiles under the Multifibre Agreement liberalization, which could give a boost to the production of fibres domestically.

South East and East Asia, where two countries are least developed, shares a similar pattern to South Asia and could lose from higher world prices of wheat and coarse grain, which would more than offset possible export gains from higher rice prices. With some significant exceptions, most countries in the region will stay relatively close to food self-sufficiency and the main result of the Uruguay Round price changes would be to reinforce this tendency. The sub-region enjoys a wide and diversified range of exports including rice, oilseeds, fibres, tropical beverages, fruit, sugar, cassava and hides and skins. Probably few gains can be expected from the tropical beverages, the market for cassava may contract. Fibres may be boosted somewhat as a result of increased demand from the textile sector while oilseeds, fruit and hides and skins could benefit from market expansion.

Finally as regards the Pacific islands (four countries of which are in the least

developed group), they are generally like the Caribbean countries, net importers of food and net exporters of sugar (Fiji), and palm and coconut products. The shortage of land in most of the countries will presumably limit the possibilities of a major increase in domestic food production so that a careful focusing on high valued products, exploiting the possibilities for diversification where feasible, will still be important options. Food imports will cost more.

V. SPECIAL ISSUES

Lower Value of Preferences

The widespread reduction in standard tariff rates (i.e. the Most Favoured Nation or MFN rates) combined with unchanged rates under the various tariff preference schemes (GSP, Lomé, Caribbean Basin Initiative) signifies a reduction in the preference margin. The basic idea behind preferential schemes is that a recipient exporting country can sell products into the preference giving country either at a lower price than non-preference receivers and so capture increased sales or sell at the same market price but get a higher return (the difference equal to the preference margin). Typically, preferential access is given on a limited range of agricultural commodities and usually not for unlimited amounts. The quantities benefit from preferential rates are limited either by quota or by rules-of-origin.

To calculate the value of preferences it would theoretically be necessary to know whether countries choose to lower prices and increase the volume or take the full benefit of the preference margin. Because, however, in most markets with preferential access the developing country recipients can be assumed to be relatively small suppliers and hence "price takers", it has been assumed that the recipient countries do not normally use price discounts but rather take the preference margin. Essentially this approach

defines a preference margin potential, the maximum that could be obtained. The potential value of such preferences was taken to be the product of the percentage preference margin and the value of imports from the preference receiving exporting country. Only significant flows of such trade are reported, which indicates an underestimate of the value of preferences. However, some tariff receiving countries apparently sell some goods at the preferential rate and others (of the same type) at the MFN rate indicating an overestimate of the value of preferences. With possible sources of both over and under-estimation, it may be concluded on balance that this method of estimating the potential value of preferences is reasonable.

Using this method, the potential value of preferences given by the European Union, Japan and the United States in the agricultural sector in 1992, was US\$1.9 billion, one third going to Africa, 40 percent to Latin America and the Caribbean, and the rest mainly to the Far East and Oceania developing countries. The Near East is estimated to have benefited very little. After the Uruguay Round reduction in MFN rates, the potential value of preferences is estimated to fall by US\$0.8 billion with losses of US\$ billion 0.2, 0.3, 0.2 and 0.1 for

Africa, Latin America and the Caribbean, the Far East and others respectively. On a commodity basis the biggest losses are estimated for fruit and nuts, sugar, coffee and tea.

Higher Income Growth

The range of estimated impacts on world income of the Uruguay Round is quite wide. The GATT estimates these to be between US\$100 billion and US\$500 billion. The present study has been based on the World Bank/OECD estimate of US\$213 billion. In order to see the possible effect of a higher income assumption it was chosen to take a figure double the original level. The effect on the projections is relatively small: the value of world agricultural trade would be boosted by just over one percent, half due to higher prices and half to increased trade volumes. The pattern of trade would not change significantly as the percentage increase in income postulated would be much the same for all regions compared with the lower income growth variant.

Stability of Prices

One of the more important anticipated benefits accruing from the Uruguay Round is the expected reduction in price instability. The idea behind this view is that by

increasing the number of countries that are open to world price signals, "shocks" (arising say from unexpected production shortfalls) would be absorbed by a greater number of markets, thus cushioning the effect of such shocks on world prices. However, liberalization is also expected to lead to a decline in government stockholding, a decline that is unlikely to be compensated by an expansion of private stockholding, so that total stocks could well decline. This second consideration is not captured by the way that the modelling has been done (nor could it easily be done, as the matter is highly complex). The approach that was followed, therefore, relied essentially on examining the impact of production shocks on world price stability to see whether the tariffication and reduction of

tariffs had the expected effect. The production shocks chosen for examination were a generalized 5 percent decline in cereals output in the year 1999 and their effect on world prices in the year 2000. The result of the simulation is that trade liberalization as modelled in this study appears to have almost no effects on the stability of cereals.

Tariff Escalation

The problem of tariff escalation is that importing countries may and often do put a higher effective tariff on the more processed products and a lower effective tariff on the raw materials thus encouraging imports of the latter and discouraging those of the processed product, potentially depriving the exporting countries of the chance to increase

the value added on their primary products. This question has not been examined in the present study but has been analyzed by the GATT Secretariat for hides and skins and leather, rubber, jute and tobacco among agricultural commodities. Their study shows a degree of reduction in tariff escalation for the four importers concerned (Canada, the EC, Japan and the United States). However, in about half the cases the decrease in the tariffs on intermediate agricultural processed goods has been larger than the decrease in the final goods tariffs, implying an increase in tariff escalation at the final stage. These cases include rubber in the EC, Japan and the United States; jute in Canada, the EC and the United States and hides and skins and leather in Japan.¹² This is a subject on which more research is required.

VI. CONCLUSIONS

The outlook for commodity markets even after all the ongoing trade liberalization efforts is still for a slowdown in growth rates compared with the eighties. The Uruguay Round is estimated to have a positive effect on the value of trade as the small boost to volumes is coupled with a positive effect on prices, but it will not overturn the slowdown that is caused by decreased import growth in the main developed country markets. World agricultural market prices are generally expected to be higher than in the 1987-89 base period, the growth due significantly to the effects of the Uruguay Round.

Overall the global value of world trade of the principal agricultural commodities is expected to rise by US\$55 billion between 1987-89 and 2000, US\$15 billion of which may be attributed to the Uruguay Round.

Among the developed countries there would be large increases in the net imports of the principal commodities by western Europe and Japan, a decline in the deficit of Eastern Europe and the area of the former USSR. By contrast, large export gains will be made by North America and Oceania.

As regards the developing countries, their overall agricultural export earnings are expected to keep pace with the rise in import bills. However, the gap between the

value of imports and exports is expected to widen substantially for the Near East while in Africa it is projected to go from a small surplus to a small deficit. Net exports are expected to improve for the Latin America and the Caribbean region and for the Far East. The Uruguay Round, though only accounting for a part of these changes, will affect the agricultural import bills of all developing regions adversely and boost exports to a lesser extent. Apart from higher prices and shifts in market shares towards the more efficient exporting countries, the Uruguay Round will raise food import bills because of the reduction in export subsidies on these products and will lead to a sizeable fall in the value of preferential trading arrangements.

The slowdown in the growth of world agricultural trade, despite the positive effects of the Uruguay Round, is a disappointment to agricultural exporting countries. However, agricultural trade liberalization *per se* does not necessarily boost the volume of world trade especially when the protectionism being reduced is concentrated in countries that are exporters of agricultural goods. The effect of reduced protectionism in these cases is more on world prices and on trade shares; and, as has been noted, these are expected to change as a result of the Uruguay Round.

Moreover, the Uruguay Round only represents a partial reduction in protectionism. Only a relatively small cut in domestic support is envisaged though more substantial cuts in border protection are to be made. It may also be noted, however, that the Uruguay Round Agreement on Agriculture calls in Article 20 for the continuation of the reform process and reiterates that the long term objective remains that of "substantial progressive reductions in support and protection resulting in fundamental reform".

One of the side-effects of the reduction in tariffs will be the erosion of the value of preferential margins, the potential loss of which has been estimated at US\$0.8 billion. As many of the recipients of preferential schemes are among the poorest of the developing countries, this is a loss that should be examined in depth by the preference giving countries with a view to restoring the value of the preferences by other trade concessions or by other forms of compensation.

Though this document is concerned with the assessment of the impact of the Uruguay Round and other developments on agricultural markets, it should be noted that the Uruguay Round Final Act is also a milestone in the development of agricultural policy. The implications for national policy

formulation are manifold and can only be listed in a very summary way here. They are, however, the focus of FAO's normative and operational policy work at present and will continue to be in the future. FAO has organized four regional expert consultations on the subject and a number of requests for policy assistance have been approved; others will be undertaken subject to resources being available. Briefly the following are the main areas where policies may need to be reexamined:

- (i) the expected increase in food and agricultural prices in international markets may call for modifications in national food security and nutrition enhancement policies and strategies, including consumer price policies for food;
- (ii) although the rise in prices at the world level, coupled with use of tariffs, can lead to more appropriate incentives to producers, most developing countries will need to evolve targeted and decoupled (Green Box) forms of assistance that can be implemented at low budgetary costs;
- (iii) tariffication may introduce greater instability to domestic prices, which may require reconsideration of

producer price policies and modifications in "price bands" or other instruments to prevent excessive instability;

- (iv) countries will need to assess carefully the extent to which countervailing measures may be required to offset the internal price depressing effects of gradually declining but continuing high levels of protectionism elsewhere, and use the financial resources captured to increase food production and enhance food security in accord with their comparative advantages in a protectionism-free world;
- (v) following tariffication, and hence the elimination of non-tariff barriers, there may well be increased scope for intra-regional or sub-regional trading arrangements based on tariff concessions;
- (vi) countries not members of the GATT/ WTO will need to assess carefully the costs/benefits of membership in view of the changed international trading environment; and
- (vii) countries will need to strengthen their technical services in the sanitary and phytosanitary areas.

Developing countries will be facing considerable changes in world market conditions while also confronting a complex policy agenda. They may require a variety of assistance to capture potential benefits from new market opportunities and to cope with new problems and exigencies. The relatively sluggish growth of world markets for the principal agricultural commodities should encourage them into diversification and further processing of their primary agricultural commodities. More thought needs, therefore, to be given to questions of tariff escalation and targeted tariff reduction in areas of potential market growth of interest to developing countries. New forms of assistance to replace loss of preferences need to be considered and technical assistance in policy formulation and sanitary and phytosanitary measures will need to be stepped up. In all this, the particular needs of the least developed countries will need to be given priority consideration.

REFERENCES

1. Discussed at the 1993 session of the Committee on Commodity Problems, see CCP:93/18.
2. Total AMS means the annual level of support provided for agricultural products or non-product-specific support provided in favour of agricultural producers in general other than support provided under exempt programmes (e.g. Green Box).
3. "The Results of the Uruguay Round of Multilateral Trade Negotiations" GATT, Geneva, November 1994.
4. Trade Liberalization: Global Economic Implications by Ian Goldin, Odin Knudsen and Dominique van der Mensbrugghe, OECD and World Bank, 1993.
5. The reduction is below 36 percent because a number of countries have chosen as base period from which to start the reductions the average subsidized exports in 1990-91, as these were higher than the 1986-90 average.
6. Coffee stocks held in exporting countries and coffee inventories carried by importing countries, were assumed not to change from the base scenario. Therefore, for exporting countries the change in exports reflects the difference between the change in production and the change in consumption. For importing countries, the change in imports equals the change in consumption.
7. Levels of cocoa stocks held in exporting and importing countries were assumed not to change from the base scenario. Therefore, for exporting countries changes in export volumes reflect changes in domestic production and consumption only, while in importing countries changes in imports are implicitly equal to changes in local consumption.
8. Prior to the implementation of its single market policy in 1993, the EC had four distinct segments. The largest of these (37 percent of EC banana imports) was Germany, which was duty and tariff free. The next largest, representing 28 percent of EC banana imports (France, Greece, Portugal and Spain), absorbed the bulk of the EC production, supplemented with varying quantities from ACP and Latin American (dollar bananas) countries. A variable quota and 20 percent tariff was levied on dollar imports. The third largest (26 percent of EC imports) was predominantly supplied by the ACP countries. The United Kingdom, and before civil unrest in Somalia, Italy, belonged to this segment, which also imposed a quota and 20 percent tariff on dollar supplies. The last segment (9 percent of EC imports) did not impose a quota but levied a 20 percent duty on dollar imports. Belgium, Denmark, Ireland, Luxembourg and the Netherlands belonged to this segment.
9. In April 1995 the EC agreed to expand the tariff quota from 2.2 million tons to 2.55 million tons to allow for the entry of Austria, Finland and Sweden as new members of the Community. However, the impact of the additional quantity was not simulated as the distribution amongst dollar suppliers was not known when this document was finalized, and the impact was expected to be minimal.
10. Japan's LDC rate is zero, but quantities imported under this scheme are insignificant.
11. The problems of the horticultural sector were discussed at FAO's Expert Consultation on the Impact of the Changing International Trade Environment on Agricultural Trade in the Near East Region, Cyprus, December 1994.
12. The results of the Uruguay Round of Multilateral Trade Negotiations: GATT, 10 November 1994.

ANNEX I - METHODOLOGY

Introduction

To undertake the assessment of the impact of the agreements reached in the Uruguay Round of Multilateral Trade Negotiations, the existing projections to the year 2000 for the main agricultural commodities prepared in 1992/93¹ have been adjusted to take into account both the commitments to reduce tariffs and export subsidies and to introduce minimum levels agreed in the Final Act of the Uruguay Round as well as the effects on income as estimated by the OECD/World Bank due to the impact of the Round as a whole.

The methodology used in the previous round of projections - the "baseline" projections in this publication is described in the aforementioned FAO study. In order to accomplish this task the FAO World Food Model (WFM), used in the last round of projections for the cereal/livestock/fats and oil complex, has been extended and improved to better reflect the impacts of specific policy changes while simple single commodity models have been developed to cover some of the commodities not included in the WFM.

The "central" or "baseline scenario" based on the assumptions regarding the economic and demographic conditions

expected to prevail by 2000, the most likely development of technology, no change in agricultural policies (including however known policy changes at the time of writing, e.g. including reform of the EC's CAP) and normal weather conditions - has been used as a point of reference to evaluate the impact of the policy changes reflected in the "Uruguay Round scenario".

A number of additional policy scenarios were simulated. These include:

- a) a "higher income growth scenario" reflecting a more optimistic estimate of the impact on world income deriving from the Uruguay Round;
- b) a "crop failure scenario" simulating the influence of bad weather on the output of cereals during the projection period;
- c) a "bumper crop scenario" following exceptionally favourable weather conditions affecting the output of cereals.

Assumptions

The projections made under the alternative scenarios rest on a set of assumptions on population and income growth. The study uses a single population growth assumption for each country, based on demographic projections prepared by the United Nations Population Division, corresponding to the

UN "medium variant" calculated in 1990.² Detailed information on the methods and assumptions used in making the projections can be found in the documentation of the UN Population Division (op.cit.).

As regards income growth, the baseline scenario uses a single growth rate of Gross Domestic Product (GDP) for each country. The GDP growth assumptions for the 1990s are mainly based on the long-term economic forecasts prepared by the International Economics Department of the World Bank. These were supplemented, for countries where such forecasts are not available, with estimates derived from other sources.

Estimates of net income gains resulting from the Uruguay Round has been made by various authors. According to the GATT Secretariat, estimates of the increase in world income from the liberalization of trade in goods range from a low of US\$109 billion to a high of US\$510 billion in 2005 depending on the assumptions used.³ These estimates are based on a general equilibrium model of the world economy, elaborated and applied by the GATT Secretariat. Three versions of the model have been used, with different assumptions about the nature of competition in domestic markets, economy of scale, the degree of product differentiation

and the extent to which income gains in turn stimulate savings and investment. The World Bank/OECD has estimated gains of around US\$213 billion in 2002.⁴ For the purpose of the present study the World Bank/OECD estimates were retained, with appropriate adjustments, for the main "Uruguay Round scenario" while double this amount was taken for the higher income growth scenario. Tables A1 to A3 summarize the assumptions of population, total and per caput GDP which were used in the three scenarios covered by this study, namely the "baseline", the "Uruguay Round central scenario" and the "Uruguay Round higher income growth scenario".

Table A1 - Total Population, 1980 to 1990 Actual and 1990 to 2000 - Projected

Region	1980 Actual	1990 Actual	2000 Projected	1980-90 Actual	1990-2000 Projected
<i>..... million percent per year ..</i>					
WORLD	4,448.1	5,294.3	6,262.8	1.8	1.7
DEVELOPING	3,279.5	4,045.9	4,947.9	2.1	2.0
Africa	366.4	524.7	715.6	3.1	3.2
Latin America	362.7	448.1	558.4	2.1	1.9
Near East	212.3	280.5	366.3	2.8	2.7
Far East	2,313.1	2,766.3	3,316.5	1.9	1.8
Other Developing	5.1	6.3	7.8	2.2	2.0
DEVELOPED	1,168.5	1,248.4	1,314.9	0.7	0.5
North America	251.8	275.7	294.6	0.9	0.7
Western Europe	366.8	376.8	383.2	0.3	0.2
EC	335.0	343.9	349.8	0.3	0.2
Other W Europe	149.5	156.2	162.0	0.3	0.2
Eastern Europe	117.6	123.4	128.6	0.5	0.4
Former USSR	265.5	288.6	308.4	0.8	0.7
Oceania	17.8	20.4	22.7	1.4	1.1
Other Developed	148.9	163.4	177.5	0.9	0.5

Source: UN World Demographic Projections as Assessed in 1990

Note: For country details see: FAO "Compendium of Demographic and Macro-Economic Indicators". UNCTAD/2/Rome 1993

Table A2 - Total GDP at 1980 Prices, 1980 to 1990 Actual and 1990 to 2000 Projected

Region	1980	1990	2000 Projected		1980-90		1990-2000		
	Actual	Baseline	UR	UR	Actual	Baseline	UR	UR	
			Central	High			Central	High	
			----- <i>billions US\$ at 1980 prices</i> -----				----- <i>percent per year</i> -----		
WORLD	11,562.2	15,414.6	20,741.9	20,913.7	21,096.9	2.9	3.0	3.1	3.2
DEVELOPING	2,467.4	3,590.4	5,636.0	5,692.8	5,759.2	3.6	4.9	5.0	5.1
Africa	271.0	317.9	470.6	469.1	470.6	1.6	4.0	4.0	4.0
Latin America	837.3	946.3	1,363.5	1,368.2	1,372.8	1.2	3.7	3.5	3.5
Near East	494.8	524.6	747.0	747.9	751.2	0.6	3.6	3.6	3.7
Far East	855.5	1,099.2	3,035.4	3,087.8	3,144.2	7.1	6.1	6.2	6.3
Other Developing	8.9	12.4	19.4	19.0	20.4	3.4	4.5	4.5	5.1
DEVELOPED	9,094.8	11,914.2	15,106.0	15,220.9	15,337.7	2.7	2.4	2.5	2.6
North America	2,951.7	3,932.9	4,867.0	4,876.4	4,886.0	2.9	2.2	2.2	2.2
Western Europe	3,665.8	4,636.7	6,058.9	6,141.3	6,224.8	2.4	2.7	2.9	3.0
EC	3,247.7	4,108.4	5,405.3	5,481.8	5,556.2	2.4	2.8	2.9	3.1
Other W Europe	418.1	528.3	650.6	659.5	668.6	2.4	2.1	2.2	2.4
Eastern Europe	241.4	256.7	245.4	245.6	245.8	0.6	-0.4	-0.4	-0.4
Former USSR	892.9	1,114.3	1,008.3	1,009.3	1,010.3	2.2	-1.0	-1.0	-1.0
Oceania	181.6	241.6	315.4	315.7	316.0	2.9	2.7	2.7	2.7
Other Developed	1,161.5	1,732.1	2,611.0	2,632.6	2,654.8	4.1	4.2	4.3	4.4

Source: World Bank and other international organizations

Note: For country details see: FAO "Compendium of Macro Economic Indicators", ESC/M/93/1, Rome 1993

Table A3 - Per Caput GDP at 1980 Prices, 1980 to 1990 Actual and 1990 to 2000 Projected

Region	1980	1990	2000 Projected		1980-90		1990-2000		
	Actual	Baseline	UR	UR	Actual	Baseline	UR	UR	
			Central	High			Central	High	
	----- US\$ at 1980 prices -----				----- percent per year -----				
WORLD	2,599	2,912	3,312	3,339	3,369	1.1	1.3	1.4	1.5
DEVELOPING	752	865	1,139	1,151	1,164	1.4	2.8	2.9	3.0
Africa	701	806	855	853	855	-1.4	0.8	0.7	0.8
Latin America	2,309	2,112	2,532	2,541	2,550	-0.9	1.8	1.9	1.9
Near East	2,331	1,870	2,040	2,042	2,051	-2.2	0.9	0.9	0.9
Far East	370	610	915	931	948	5.1	4.1	4.3	4.5
Other Developing	1,734	1,954	2,500	2,564	2,620	1.2	2.5	2.8	3.1
DEVELOPED	7,783	9,544	11,488	11,576	11,665	2.1	1.9	1.9	2.0
North America	11,732	14,263	16,522	16,554	16,586	2.0	1.5	1.5	1.5
Europe	8,085	9,783	12,318	12,480	12,643	1.9	2.3	2.5	2.6
EC	9,994	12,305	15,811	16,026	16,244	2.1	2.5	2.7	2.8
Other W Europe	13,145	16,056	19,479	19,746	20,018	2.0	2.0	2.1	2.2
Eastern Europe	2,053	2,080	1,908	1,910	1,911	0.1	-0.9	-0.9	-0.8
Former USSR	3,362	3,861	3,270	3,273	3,276	1.4	-1.6	-1.6	-1.6
Oceania	10,200	11,816	13,854	13,897	13,910	1.5	1.6	1.6	1.6
Other Developed	7,799	10,600	14,713	14,835	14,960	3.1	3.3	3.4	3.5

Source: World Bank and other international organizations

Note: For country details see: FAO "Compendium of Macro Economic Indicators", ESC/M/93/1, Rome 1993

Simulating the impact of the Uruguay Round

The present assessment relates primarily to the market and policy changes likely to arise up to the year 2000 when the bulk of the Uruguay Round commitments will have been completed. It should be clearly understood, however, that the study covers only those measurable policy changes in trade and agricultural policies explicitly defined in the GATT commitments and likely to occur in practice over the implementation period.

The simulation runs cover principally the effect of the Uruguay Round Agreement for the agricultural sector related to the tariffication of trade distortion measurements and of the agreed reductions. The country specific commitments concerning cuts in subsidized exports and increases in imports under the minimum access provisions are also included in the simulation runs.

The main source of data on tariff reductions and bindings is the Schedules of Market Access Concessions which cover 89 participant countries (the 12 Member States of the European Union counting as one). Agricultural product categories are defined in terms of the six-digit Harmonized System code. Tariff lines for individual commodities are provided for the "Base Rate of Duty" relating to the year 1986-88 and for the "Bound Rate of Duty" relating to the final

year of implementation (generally the year 2000 for the developed and transition economies and 2004 for the developing countries), expressed in "specific" and "ad-valorem" tariffs.

For the purpose of the simulation, all tariffs, including those for derived products, were converted and aggregated into a weighted average primary product equivalent, the weights being the total domestic availability of the products concerned in each country.

The "specific" tariffs, generally expressed in national currencies, were converted into US dollars and divided by the respective producer prices in order to include them into the WFM normalized price transmission equations. Annex tables 1-14 contain the summary aggregated tariffs for the basic foodstuffs for all countries for which data were available.

Some observations are in order for a proper use of the Schedules. The Uruguay Round on Agriculture requires the conversion of all non-tariff barriers into ordinary customs duties, and the binding of the resulting tariffs. All tariff equivalents created by the tariffication process, are bound and all tariffs including pre-existing ones are to be reduced, on average, 36 percent over the period 1995 to 2000, with a minimum reduction of 15 percent per tariff line.⁵ For developing countries the figures

were 24 and 10 percent respectively.

Tariffication of non-tariff barriers to agricultural trade is one of the most significant achievement of the Uruguay Round.⁶ The resulting tariff equivalents are transparent and, moreover, they provide a common basis for reductions in future negotiations. However, the particular way in which the conversion of non-tariff barriers into tariffs has been achieved in the Agreement has sometimes been called "dirty" tariffication, because the tariffs are often very high when compared to the actual level of protection as measured by the PSEs. The reason for this is that the years 1986-88 were chosen as the base years for tariffication when world prices for many agricultural commodities were the lowest in decades. This means that, when the world price in the base period is compared to the protected and supported internal prices, the gap was unusually wide. In addition many countries used prices to calculate their tariff equivalents which resulted in higher initial tariffs than more objective calculations might have produced. Many developing countries opted to offer ceiling bindings to their tariffs instead of tariffifying. Finally, the simple (unweighted) averaging that country could use when allocating tariff reduction to individual products has allowed much scope for continued protection of the "sensitive" products.

In practice, it is possible that in some cases countries will not apply the full tariff recorded in the Schedules, so that the new tariffs can be interpreted as representing maxima.

Despite the above reservations, the simulation of the "Uruguay Round" scenario assumes that countries will undertake reforms according to their offers on the reductions in tariffs, as presented in the Schedules of reduction commitments. In addition, the simulation assumes that developing countries will not raise their tariffs, even though in many cases the new tariff bindings are above the previously observed rates, implying a presumption that countries will not exercise the option to increase protection as a result of the Agreement.

The minimum access provisions have been introduced into the WFM on an "ad-hoc" basis in all cases where the model did not generate a sufficient volume of imports

to meet national commitments. The additional import quantities have been modelled by decreasing the production and/or increasing the demand, depending on the particular circumstances. Figures on the current and minimum access commitments by commodity and country are provided in Table A4.

Regarding export subsidy commitments (Table A5), the approach followed in the WFM differs according to the type of export subsidies used in the past. In particular, for countries that have used export subsidies for all their exports, a maximum has been introduced exogenously on the volume of their exports according to the commitments for specific commodity and year. In order to accommodate this reduction, it was necessary to increase the demand, i.e. in the feed sector, or to adjust the production by lowering yields or restricting the projected cultivated area, taking into account current

and expected country adjustment policies and plans. For those exporters which only subsidize a part of their exports targeted to some countries only, no such constraint has been modelled but it is still assumed that this will erode part of their competitiveness and hence influence the volume of their exports. Net exporters subsidizing their exports create an "artificial" price incentive on the internal market and contribute to depress world market prices especially when the quantities exported are drawn from government stocks. The approach followed in the WFM to simulate the impact of reduced targeted export subsidies was to include an additional element in the supply and demand price transmission equations reflecting the price reduction expected to prevail in the domestic market of the subsidizing exporters and the corresponding increase in the price of the importing countries.

Table A4 - Market access under minimum access opportunity commitments by commodity^{1/}

	Initial Quota	Final Quota 2/	Increase
	..... thousand tonnes		
Wheat	12 898.2	13 243.5	345.3
Coarse grains	17 473.0	18 378.2	905.2
Rice	982.4	1 753.3	770.9
Vegetable oils 3/	773.5	794.7	21.2
Oilseeds	1 671.8	1 727.7	55.9
Oilmeals	191.8	191.8	0.0
Bovine meat	1 198.5	1 339.0	140.5
Ovine meat	328.9	333.9	5.0
Pigmeat	137.1	269.3	132.2
Poultry meat	229.9	307.9	60.0
Butter	110.7	137.6	26.9
Skim milk	522.3	649.8	127.5
Cheese	214.2	325.0	110.8
Other milk products	1 065.4	1 243.1	177.7
Sugar	3 109.9	3 359.5	249.6

1/ As products are expressed at different stages of processing in the schedules, the totals are only indicative.

2/ The implementation period generally begins in 1995 and ends in 2000 for the developed countries and in 2004 for the developing countries and for the economies in transition.

3/ Including other fats

Table A5 - Subsidized export reduction commitments by commodity

	Export subsidies (million US\$)			Change from higher base	Subsidized quantities (thousand tonnes)			Change from higher base	Unit export subsidy (US\$ per tonne)			Change from higher base
	1986-90	1995	2000		1986-90	1995	2000		1986-90	1995	2000	
Wheat	3314.4	4628.1	2404.8	-48	51448	60058	41654	-31	64	77	58	-25
Rice	113.3	119.0	81.4	-32	1631	1828	1465	-17	69	67	56	-20
Coarse grains	2356.9	2378.2	1658.4	-30	33778	33351	27254	-19	70	71	61	-15
Vegetable oils	265.8	285.4	191.4	-33	1621	2020	1403	-31	164	141	136	-17
Oilseeds	244.5	233.7	177.8	-27	4311	4190	3582	-17	57	56	50	-12
Oilmeals	245.8	239.7	209.2	-15	2940	2913	2658	-10	84	82	79	-6
Bovine meat	3460.0	3347.7	2232.1	-35	1830	1905	1489	-22	1890	1757	1499	-21
Ovine meat	53.4	50.3	35.7	-33	62	61	52	-16	855	827	684	-20
Pigmeat	578.9	551.1	397.1	-31	883	854	715	-19	656	645	555	-15
Poultry meat	499.9	475.9	356.8	-29	795	856	651	-24	629	556	548	-13
Butter, butter oil	1619.8	1542.7	1039.8	-36	594	612	472	-23	2726	2520	2204	-19
Skim milk	762.2	719.4	488.0	-36	686	713	542	-24	1111	1010	900	-19
Cheese	727.1	814.6	467.3	-43	545	575	437	-24	1335	1416	1069	-24
Other milk products	1602.0	1539.4	1025.5	-36	1443	1427	1141	-21	1111	1079	899	-19
Sugar	3506.9	3221.7	2540.6	-28	6434	5974	5294	-18	545	539	480	-12

Note: Commitments converted to US dollars using 1986-88 average exchange rates.

Note: As products are expressed at different stages of processing in the Schedules, the totals given above can only be considered indicative.

Alternative Scenarios

Evaluating the impact of policy changes is done by comparing the results of the simulation run which include these policy alterations with those of the base run. The latter provides a neutral point of comparison for the assessment and, hence, depicts the evolution of agricultural commodity markets, given past developments of all major determinants including policies.

No feedback effects due to liberalization are included in the "Uruguay Round" scenario with the exception of its likely impact on income growth. The income assumptions used in the "baseline" scenario have been modified to include the income gains to be expected from trade liberalization. Since the WFM covers only a limited number of agricultural products it was not possible to estimate directly the overall welfare gain relative to the level of income assumed for the "baseline" projections. The present simulations, therefore, utilize estimates derived from other models with a more comprehensive coverage. In particular, the World Bank/OECD "conservative" estimates of US\$213 billion were retained for the base "Uruguay Round" scenario.⁷ These were included as percentage increases in income relative to the benchmark levels for individual countries and regions. In addition, in order to see the effect of an acceleration of income growth on the pattern and value

of world agricultural trade, a Higher Income Growth scenario was generated doubling the percentage increases in income gains.

One of the most important benefits likely to arise from the Uruguay Round Agreement is the expected reduction in price instability. The idea behind this view is that there will be increasing the number of countries open to world market forces which could eventually absorb shocks generated by production fluctuations, such as those due to unexpected production shortfalls or bumper crops as a consequence, for example, of large weather fluctuations. Since the WFM is basically a determinist model, i.e. does not contain stochastic elements, the approach followed was essentially to examine the impact of production shocks on world price stability in order to verify if tariffication and reduction of tariffs had the expected effect. The production shocks chosen for examination were a generalized 5 percent decline (and symmetrically a 5 percent increase) in cereals output in the year 1999 with respect to that projected for the same year in the "baseline" scenario. Due to the lag nature of the cereal supply equation their effect are reflected on world prices in the year 2000.

Methodology for other commodities

The "baseline" projections for commodities not included in the WFM, namely coffee, cocoa, tea, sugar, bananas, rubber and bovine hides, were made using methodologies ranging from detailed econometric commodity models (e.g. sugar) to demand and supply projections based on analyses and adjusted extrapolations of past trends supplemented by expert judgments of the FAO commodity specialists.⁸ In a number of cases, the projections were prepared jointly or in cooperation with other international organizations.

In particular, the demand projections for **tropical beverages** were made using demand functions which links per caput consumption to the projected growth rates of per caput GDP by means of income elasticities estimated mainly from cross-section studies. It was assumed that real prices would remain constant during the projection period, i.e. the effect of price changes was implicitly excluded as influencing future demand. On the supply side, projections were made separately for area and yield. The area projections are mainly based on trends, which were adjusted by incorporating relevant information on policies and technological changes. An important property of most of these crops is their long production period and at the same time short term (usually biennial) yield fluctuations. Given both the long term

production profile and the short term output fluctuations, the development of yields is to be considered the crucial determinant for the future evolution of production of these commodity groups. The yield projections were made by the FAO commodity specialists taking into account (i) the composition of the total area of the respective commodity according to the year of planting, e.g. the number of bearing and non-bearing trees etc.; (ii) the percentage of trees uprooted or replanted because of age, disease or damage; (iii) the average yield profile during its life; (iv) technical progress and (v) the impact of other exogenous factors influencing future production (e.g. frost in the past). Net trade was calculated as the difference between quantities supplied, defined as production minus stock changes, and quantities demanded, defined as the sum of the various form of utilization. At the country level this difference represents export availability (if positive) or import requirements (if negative).

The projections for **sugar** were prepared in cooperation with the International Sugar Organization using an econometric model where standard production, demand and price linkage equations were estimated using data from 1970 to 1990. The "baseline" projections were generated on the basis of a series of assumptions about income growth, agricultural policies, weather and technological changes. Agricultural policies

relating to sugar production and consumption were assumed to be continued in all countries. For the production projections average weather conditions and historical rates of technological change were assumed to prevail during the projection period. However, for several countries production constraints were introduced on an ad hoc basis, details of which are given in the document.⁹

Projections of import requirement and export availability for **bananas** were made on the general assumption of a continuation of present national policies. Although it was possible to make a simplifying assumption that price relations would remain unchanged during the projection period this has not been done. Unchanged price relations would lead to a large disequilibrium between supply and demand at the world level that is unlikely to occur in practice. Therefore, some change in price relations has been allowed when preparing the projections. In addition, recent trends in actual imports and exports of bananas have been given greater weight to obtain a more realistic balance between projected export availabilities and import requirements. In interpreting the results, several factors need to be considered. These include the varying degree of accuracy of historical data on which past trends are assessed and the unsettled situation in several areas that theoretically have strong prospects for future growth of

consumption.

Projections of **bovine hides** were directly linked to the WFM projections of cattle population, using historically-based conversion factors to derive hides production from the projected number of animals slaughtered. For countries where hides and skins are produced predominantly from "fallen" animals, a time trend was added. Per caput consumption was projected for each country or group of countries using a regression equation incorporating income projections and a time trend. The resulting projections were then adjusted so that the aggregate world demand equalled total supply. Net trade was calculated as the difference between domestic production and consumption.

Simulating the impact of tariff reductions

For the non-WFM commodities a "simple" price-equilibrium model was used to calculate the effects of the tariff reductions following the Uruguay Round Agreement. This is a single-commodity model which uses multiple spreadsheets. The model, therefore, does not presently allow a multi-commodity approach similar to that of the WFM, although substitution and complementary relations to other products could theoretically be included. However, in order not to add complexity to the model and to facilitate interpretation, it was considered unnecessary to expand it to add

these features also because its use was limited to commodities which compete only marginally. This "simple" model only takes one primary commodity into account. All derived products from the commodity concerned are expressed in primary commodity equivalent including tariff rates following a methodology similar to that utilized in the WFM.

The model does not itself generate projections but utilizes the "baseline" scenario as a starting point for the simulation. Supply and demand respond to changes in domestic producer and retail prices, respectively, through a semi-logarithmic function and selected price elasticities of supply and demand. Domestic prices are linked to border prices (i.e. import unit values and export unit values) by margins representing internal marketing,

processing, distribution costs and excise taxes. Border prices are, in turn, linked to world market prices (i.e. the clearing price) by price wedges reflecting both transport cost and trade policies. In a situation in which a country imports the primary commodity, the cif price is equal to the world market price plus transport costs from the world market to the country. The landed price includes the rate of import tariff, or rather the nominal rate of protection. Should the country, however, turn out, in a given model run, to be an exporter of the primary commodity, the f.o.b. price is relevant. Moreover an export tax may apply or export subsidies can be granted.

To simulate the impact of the Uruguay Round, model assumes that all other margins remains proportionally constant in relation to the base period with the exception of the

tariff component which is reduced in line with the country's reduction commitment.

The equilibrium solution of the model is found through an iterative process. The first iteration starts with an arbitrary level of world market price (i.e. generally the price projected under the "baseline" scenario). Domestic prices are modified as a consequence of the reduction in the effective rate of protection. For each country new supply and demand levels are calculated and net trade position derived. If net exports do not sum up to zero, the world market price is changed for the second iteration and this procedure is repeated until world supply and demand are in equilibrium (i.e. world net trade equal to zero or close to zero with any predetermined precision). The final solution determines the new levels of supply and demand and the market clearing price.

Annex Table 1 - Wheat - Aggregated Tariff Equivalents

	Base Rates		Bound Rates		Year of Producer		Changes	
	Specific Ad Valorem	US\$	Specific Ad Valorem	US\$	Impose.	Prices	Specific Ad Valorem	US\$
ARGENTINA	0.00	38.00	0.00	38.00	2004	190.87	0.0	0.0
AUSTRALIA	0.88	0.22	0.00	0.22	2000	114.80	-100.0	0.0
AUSTRIA	443.04	2.46	390.74	3.14	2000	269.73	-18.7	0.0
BELGIUM	229.02	4.46	135.47	2.87	2000	208.59	-40.8	-35.7
BENIN	0.00	70.00	0.00	79.00	2004	300.00	0.0	0.0
BRAZIL	0.00	58.92	0.00	54.89	2004	465.94	0.0	-6.8
CANADA	0.00	310.00	0.00	310.00	2004	279.97	0.0	0.0
CANADA	9.38	75.60	8.32	64.24	2000	90.13	-14.9	-15.0
CHILE	0.00	35.00	0.00	30.93	2004	148.97	0.0	-12.8
CHINA P. REP.	0.00	95.02	0.00	84.41	2004	94.32	0.0	-11.2
COLOMBIA	0.00	133.55	0.00	114.05	2004	210.04	0.0	-11.4
CONGO	0.00	30.00	0.00	30.00	2004	300.00	0.0	0.0
COSTA RICA	0.00	53.53	0.00	34.24	2004	200.00	0.0	-34.5
CUBA	0.00	40.00	0.00	40.00	2004	348.67	0.0	0.0
CYPRUS	186.84	39.21	293.72	29.70	2004	253.99	-24.1	-24.3
CZECH REP.	0.00	21.74	0.00	20.23	2000	314.28	0.0	-11.1
DEMARE	175.81	4.39	84.77	3.82	2000	205.15	-90.4	-35.8
DOMINICAN REP.	0.00	40.00	0.00	40.00	2004	200.00	0.0	0.0
EGYPT	0.00	10.39	0.00	5.71	2004	319.89	0.0	-45.0
EL SALVADOR	0.00	32.37	0.00	31.19	2004	114.36	0.0	-3.4
FIJI	0.00	40.00	0.00	40.00	2004	201.32	0.0	0.0
FINLAND	217.40	269.06	185.26	210.69	2000	532.23	-14.9	-10.7
FRANCE	190.95	1.31	99.94	0.84	2000	175.15	-61.7	-39.9
GABON	0.00	240.00	0.00	240.00	2004	200.00	0.0	0.0
GERMANY	228.20	2.42	146.45	1.55	2000	250.00	-35.8	-36.0
GHANA	0.00	115.00	0.00	99.00	2004	300.00	0.0	-20.9
GREECE	209.38	0.47	121.90	0.44	2000	203.58	-41.8	-39.4
GUATEMALA	0.00	117.04	0.00	105.17	2004	242.08	0.0	-10.1
GUYANA	0.00	140.00	0.00	140.00	2004	900.00	0.0	0.0
HONDURAS	0.00	39.00	0.00	35.00	2004	191.17	0.0	-7.9
HUNGARY	0.00	52.27	0.00	33.35	2000	79.14	0.0	-34.2
INDIA	0.00	143.89	0.00	163.95	2004	166.52	0.0	0.0
INDONESIA	0.00	34.10	0.00	29.90	2004	200.00	0.0	-17.2
IRELAND	189.96	4.33	112.43	3.79	2000	170.11	-43.7	-36.8
ISRAEL	0.00	136.31	0.00	105.61	2000	206.19	0.0	-22.5
ITALY	233.15	2.03	141.34	1.30	2000	274.34	-79.5	-34.0
JAPAN	548.14	2.13	445.12	1.57	2000	315.78	-15.1	-16.3
KOREA REP.	0.00	21.04	0.00	4.51	2004	398.58	0.0	-38.6
KUWAIT	0.00	119.00	0.00	119.00	2004	140.00	0.0	0.0
MACAU	0.00	280.00	0.00	280.00	2004	250.34	0.0	0.0
MALAYSIA	0.00	65.94	0.00	52.11	2004	200.00	0.0	-19.0
MEXICO	0.00	54.91	0.00	50.70	2004	172.01	0.0	-10.3
MOROCCO	0.00	184.75	0.00	142.12	2004	249.49	0.0	-23.9
MYANMAR	0.00	52.00	0.00	52.79	2004	279.84	0.0	0.0
NAMIBIA	0.00	201.59	0.00	93.50	2004	193.73	0.0	-53.4
NETHERLANDS	211.01	5.27	111.67	3.39	2000	222.39	-42.3	-35.7
NEW ZEALAND	0.00	21.51	0.00	12.15	2000	115.10	-43.2	-43.2
NICARAGUA	0.00	40.00	0.00	40.00	2004	400.00	0.0	-73.3
NORWAY	0.00	347.65	0.00	249.34	2000	446.33	0.0	-28.6
PALESTINE	0.00	105.68	0.00	105.68	2004	117.20	0.0	0.0
PHILIPPINES	0.00	47.49	0.00	37.58	2004	140.00	0.0	-21.1
POLAND	175.40	15.47	112.43	9.98	2000	155.42	-35.9	-36.3
PORTUGAL	249.00	0.80	155.98	0.51	2000	333.30	-27.1	-34.3
ROMANIA	0.00	279.49	0.00	223.89	2000	115.23	0.0	-20.0
SINGAPORE	0.00	27.00	0.00	10.00	2004	279.07	0.0	-63.0
SLOVAK REP.	0.00	22.74	0.00	20.23	2000	314.28	0.0	-11.1
SOUTH AFRICA	0.00	176.50	0.00	84.86	2004	166.94	0.0	-51.9
SPAIN	217.22	0.50	127.47	0.32	2000	222.12	-41.3	-14.0
691 LANKA	0.00	65.90	0.00	49.99	2004	73.04	0.0	-24.2
SWAZILAND	0.00	221.40	0.00	99.84	2004	241.04	0.0	-94.9
SWITZERLAND	90.43	19.07	67.00	15.74	2000	175.74	-24.3	-19.3
THAILAND	201.64	53.90	109.35	29.40	2004	120.00	-49.3	-45.5
TRINIDAD AND TOBAGO	0.00	115.00	0.00	119.00	2004	200.00	0.0	0.0
TUNISIA	0.00	193.01	0.00	94.86	2004	224.55	0.0	-24.0
TURKEY	0.00	191.02	0.00	171.92	2004	122.79	0.0	-10.0
UK	201.08	2.23	108.90	0.79	2000	193.78	-49.9	-39.0
URUGUAY	0.00	28.92	0.00	47.99	2004	140.44	0.0	44.0
USA	0.00	0.12	0.14	0.06	2000	106.74	-46.5	-30.0
VENEZUELA	0.00	125.77	0.00	113.63	2004	209.47	0.0	-9.3
ZAMBIA	0.00	0.94	0.00	2.15	2004	177.90	0.0	124.0

Annex Table 2 - Rice - Aggregated Tariff Equivalents

	Base Rates		Bound Rates		Year of Production	Changes	
	Specific Ad Valorem	US\$	Specific Ad Valorem	US\$		Specific Ad Valorem	US\$
ARGENTINA	0.00	38.00	0.00	38.00	2004	297.57	0.0
AUSTRALIA	0.00	2.00	0.00	3.00	2000	101.62	0.0
AUSTRIA	333.51	0.00	65.00	0.00	2000	253.01	-42.0
BELGIUM	276.42	0.00	242.97	0.00	2000	252.44	-36.0
BENIN	0.00	79.00	0.00	79.00	2004	414.92	0.0
BRASIL	0.00	53.56	0.00	54.25	2004	431.20	0.0
CAMEROON	0.00	330.00	0.00	330.00	2004	409.63	0.0
CANADA	2.22	0.00	5.43	0.00	2000	226.00	-35.6
CHILE	0.00	35.00	0.00	35.00	2004	79.90	0.0
CHINA P. REP.	0.00	148.03	0.00	132.32	2004	133.03	-24.1
COLOMBIA	0.00	209.39	0.00	184.23	2004	162.61	-10.3
CONGO	0.00	39.00	0.00	39.00	2004	282.31	0.0
COSTA RICA	0.00	25.99	0.00	34.13	2004	241.11	-25.5
CUBA	0.00	40.00	0.00	40.00	2004	472.59	0.0
CYPRUS	234.62	22.00	542.89	23.00	2004	250.00	-24.3
CZECH REP.	0.00	0.00	0.00	0.00	2000	400.00	0.0
DENMARK	434.22	0.00	237.98	0.00	2000	250.00	-36.0
DOMINICAN REP.	0.00	40.00	0.00	40.00	2004	271.35	0.0
EGYPT	0.00	29.80	0.00	19.87	2004	300.00	0.0
EL SALVADOR	0.00	50.00	0.00	40.00	2004	397.38	-29.0
Fiji	0.00	59.91	0.00	45.94	2004	184.94	0.0
FINLAND	0.00	14.92	0.00	12.44	2004	277.54	-12.5
FRANCE	311.12	0.00	237.46	0.00	2000	290.53	-36.0
GABON	0.00	240.00	0.00	240.00	2004	630.46	0.0
GERMANY	455.29	0.00	291.38	0.00	2000	283.13	-36.0
Ghana	0.00	125.00	0.00	99.00	2004	354.94	0.0
GREECE	400.91	0.00	256.52	0.00	2000	325.29	-36.0
GUATEMALA	0.00	59.35	0.00	89.41	2004	337.39	0.0
GUYANA	0.00	141.19	0.00	141.19	2004	523.45	0.0
HONGKONG	0.00	38.00	0.00	35.00	2004	255.73	0.0
HUNGARY	0.00	96.31	0.00	40.27	2000	310.40	-59.0
INDIA	0.00	1.42	0.00	1.42	2004	191.09	0.0
INDONESIA	0.00	177.72	0.00	157.90	2004	124.40	-11.2
IRELAND	456.47	0.00	292.41	0.00	2000	250.00	-36.0
ISRAEL	0.00	9.98	0.00	7.98	2000	250.00	-24.0
ITALY	440.24	0.00	281.77	0.00	2000	425.09	-36.0
JAPAN	0.42	0.00	0.43	0.00	2000	223.92	0.0
KOREA REP.	0.00	0.14	0.00	0.20	2004	542.97	0.0
KUWAIT	0.00	115.00	0.00	115.00	2004	270.00	-24.4
LAOS	0.00	240.00	0.00	280.00	2004	145.23	0.0
LAOS P. REP.	0.00	44.44	0.00	39.48	2004	267.98	0.0
LEBANON	0.00	48.73	0.00	41.72	2004	207.24	-10.2
LIBERIA	0.00	244.23	0.00	107.34	2004	374.93	-23.9
LYBIA	0.00	10.70	0.00	10.70	2004	68.28	0.0
MACAU	0.00	0.00	0.00	0.00	2000	200.00	0.0
MACAU SAR	412.53	0.00	264.44	0.00	2000	250.00	-36.0
MACAU SAR	0.00	0.11	0.00	0.00	2000	150.00	-100.0
MALAYSIA	0.00	69.90	0.00	59.90	2004	924.50	0.0
MEXICO	35.51	2.29	12.44	1.53	2000	500.00	-27.6
MOROCCO	0.00	100.00	0.00	100.00	2004	777.38	0.0
NETHERLANDS	0.00	0.43	0.00	0.20	2004	144.00	-21.3
NEW ZEALAND	494.50	15.00	317.76	9.40	2000	200.00	-36.0
NICARAGUA	491.49	0.00	314.92	0.00	2000	439.41	-36.0
NORWAY	0.00	150.00	0.00	315.84	2000	195.77	-20.1
OMAN	0.00	21.00	0.00	10.00	2004	520.03	-43.0
PAKISTAN	0.00	0.00	0.00	0.00	2000	400.00	0.0
PARAGUAY	0.00	5.03	0.00	0.02	2000	234.34	-99.4
PERU	424.71	0.00	271.74	0.00	2000	125.41	-36.0
RUSSIA	0.00	66.00	0.00	50.00	2004	140.18	-14.2
SAUDI ARABIA	0.00	5.65	0.00	0.45	2004	424.57	0.0
SEYCHELLES	0.00	0.02	0.00	0.01	2000	244.23	0.0
SIERRA LEONE	3.44	56.41	2.74	50.60	2004	117.53	-25.0
SINGAPORE	0.00	115.00	0.00	115.00	2004	723.27	0.0
SOUTH AFRICA	0.00	100.00	0.00	40.00	2004	250.00	-60.0
SPAIN	0.00	49.87	0.00	44.70	2004	457.99	0.0
ST. LUCIA	405.34	0.00	239.22	0.00	2000	243.31	-36.0
ST. VINCENT AND THE GRENADINES	0.00	25.00	0.00	54.61	2004	184.13	0.0
TAIWAN	16.22	0.00	10.41	0.00	2000	31.10	-14.2
THAILAND	0.00	134.94	0.00	131.94	2004	299.15	0.0
TANZANIA	0.00	223.42	0.00	123.42	2004	129.00	0.0

Annex Table 3 - Maize - Aggregated Tariff Equivalents

	Base Rates		Round Rates		Year of Producer	Changes	
	Specific Ad Valorem	US\$	Specific Ad Valorem	US\$		Specific Ad Valorem	US\$
ARGENTINA	0.00	30.00	0.00	30.00	2004	198.71	0.0
AUSTRALIA	2.08	1.40	0.00	1.00	2000	104.02	-100.0
AUSTRIA	277.88	0.00	275.79	0.00	2000	240.19	-15.1
BELGIUM	160.07	0.00	89.34	0.00	2000	307.43	-49.0
BENIN	0.00	70.00	0.00	79.00	2004	242.00	0.0
BRAZIL	0.00	42.25	0.00	54.46	2004	323.43	0.0
CAMBODIA	0.00	310.00	0.00	310.00	2004	284.21	0.0
CANADA	0.70	0.30	1.72	0.25	2000	82.25	-34.0
CHILE	0.00	35.00	0.00	25.00	2004	140.53	0.0
CHINA P. REP.	0.00	128.80	0.00	101.47	2004	98.99	0.0
COLOMBIA	0.00	242.04	0.00	176.78	2004	94.28	0.0
CONGO	0.00	30.00	0.00	30.00	2004	232.24	0.0
COSTA RICA	0.00	55.00	0.00	30.02	2004	212.50	0.0
CUBA	0.00	40.00	0.00	40.00	2004	148.71	0.0
CYPRUS	235.17	33.00	177.43	25.00	2004	145.76	-24.2
CZECH REP.	0.00	11.70	0.00	7.07	2000	308.85	0.0
DEMARR	162.41	0.00	95.69	0.00	2000	200.50	-41.1
DOMINICAN REP.	0.00	40.00	0.00	40.00	2004	193.73	0.0
EGYPT	0.00	11.47	0.00	0.47	2004	324.10	0.0
EL SALVADOR	0.00	33.54	0.00	31.99	2004	155.23	0.0
FIJI	0.00	40.00	0.00	40.00	2004	147.40	0.0
FINLAND	0.06	245.19	0.05	212.23	2000	494.79	-16.7
FRANCE	104.30	0.00	74.20	0.00	2000	180.10	-53.6
GABON	0.00	240.00	0.00	260.00	2004	246.02	0.0
GERMANY	189.88	0.00	183.80	0.00	2000	116.33	-44.8
GHANA	0.00	125.00	0.00	89.00	2004	291.52	0.0
GREECE	163.23	0.00	73.75	0.00	2000	191.12	-54.0
GUATEMALA	0.00	49.09	0.00	34.72	2004	162.65	0.0
GUYANA	0.00	140.00	0.00	140.00	2004	551.80	0.0
HONDURAS	0.00	30.00	0.00	35.00	2004	175.31	0.0
HUNGARY	0.00	40.32	0.00	31.39	2000	119.43	-35.0
INDIA	0.00	120.20	0.00	120.20	2004	177.81	0.0
INDONESIA	0.00	00.89	0.00	52.00	2004	212.86	0.0
IRELAND	100.84	0.00	118.89	0.00	2000	137.04	-30.8
ISRAEL	0.00	46.50	0.00	36.79	2000	177.06	-74.0
ITALY	105.40	0.00	78.97	0.00	2000	230.30	-53.5
JAPAN	105.81	0.25	89.94	0.21	2000	841.03	-15.0
KOREA REP.	0.00	391.43	0.00	742.77	2004	0.75	-30.0
KUWAIT	0.00	115.00	0.00	115.00	2004	170.00	0.0
MADAGASCAR	0.00	200.00	0.00	200.00	2004	263.33	0.0
MALAYSIA	0.00	8.34	0.00	5.21	2004	134.10	0.0
MEXICO	0.00	64.11	0.00	75.80	2004	231.50	-9.9
MOROCCO	0.00	150.86	0.00	120.85	2004	200.21	0.0
MYANMAR	0.00	70.07	0.00	10.57	2004	159.79	0.0
NAMIBIA	0.00	212.05	0.00	94.48	2004	158.48	-54.5
NETHERLANDS	160.83	0.00	84.30	0.00	2000	181.70	-50.2
NEW ZEALAND	0.00	4.50	0.00	2.93	2000	104.41	0.0
NICARAGUA	0.00	30.00	0.00	60.00	2004	80.32	0.0
NORWAY	0.00	222.53	0.00	182.23	2000	370.23	-27.1
PAKISTAN	0.00	114.33	0.00	114.33	2004	49.73	0.0
PHILIPPINES	0.00	80.93	0.00	45.41	2004	133.26	0.0
POLAND	187.81	44.25	85.92	26.44	2000	179.87	-34.7
PORTUGAL	167.79	0.00	78.14	0.00	2000	284.77	-53.4
ROMANIA	0.00	232.35	0.00	274.00	2000	10.07	0.0
SINGAPORE	0.00	27.00	0.00	10.00	2004	259.80	-63.0
SLOVAK REP.	0.00	11.70	0.00	7.07	2000	308.85	0.0
SOUTH AFRICA	0.00	148.84	0.00	76.02	2000	131.41	0.0
SPAIN	187.20	0.00	80.71	0.00	2000	222.44	-52.9
SRI LANKA	0.00	44.00	0.00	50.00	2004	175.12	0.0
SWAZILAND	0.00	123.80	0.00	40.11	2004	147.17	0.0
SWEDEN	3.90	125.31	2.94	81.09	2000	262.09	-24.6
THAILAND	0.00	80.01	0.00	71.97	2004	95.00	-10.0
TRINIDAD AND TOBAGO	0.00	115.00	0.00	125.00	2004	215.67	0.0
TUNISIA	0.00	30.52	0.00	20.47	2004	149.73	0.0
TURKEY	0.00	127.71	0.00	116.77	2004	147.40	-10.0
UK	202.10	0.00	120.94	0.00	2000	192.25	-40.1
URUGUAY	0.00	41.19	0.00	41.12	2004	140.20	0.0
USA	2.55	0.00	0.79	0.00	2000	73.87	-64.0
VENEZUELA	0.00	175.19	0.00	110.85	2004	270.95	-18.7
ZAMBIA	0.00	0.00	0.00	0.00	2004	97.70	0.0

Annex Table 4 - Millet and Sorghum - Aggregated Tariff Equivalents

	Base Rates Specific Ad Valorem US\$	Bound Rates Specific Ad Valorem US\$	Year of Producer Implen. Rate US\$	Changes Specific Ad Valorem US\$
ARGENTINA	0.00	78.00	0.00	2004 125.00
AUSTRALIA	0.00	2.00	0.00	2000 89.02
AUSTRIA	265.17	0.00	225.56	0.00
BELGIUM	158.75	0.00	71.36	0.00
BENIN	0.00	79.00	0.00	2004 285.39
BRASIL	0.00	55.00	0.00	2004 279.92
CAMEROON	0.00	310.00	0.00	2004 178.02
CANADA	0.00	0.00	0.00	2000 71.37
CHILE	0.00	75.00	0.00	2004 127.39
CHINA P.R.EP.	0.00	67.00	0.00	2004 37.38
COLOMBIA	0.00	147.00	0.00	2004 146.44
CONGO	0.00	0.00	0.00	2000 289.32
COSTA RICA	0.00	55.00	0.00	2004 194.42
CUBA	0.00	40.00	0.00	2004 111.47
CYPRUS	233.87	33.00	178.47	2004 99.91
CZECH REP.	0.00	4.71	0.00	2000 242.12
DEMARE	99.38	0.00	82.48	0.00
DOMINICAN REP.	0.00	40.00	0.00	2004 173.15
EGYPT	0.00	15.00	0.00	2004 402.38
EL SALVADOR	0.00	40.30	0.00	2004 145.75
Fiji	0.00	40.00	0.00	2004 115.04
FINLAND	263.48	0.00	225.47	0.00
FRANCE	159.47	0.00	71.50	0.00
GABON	0.00	0.00	0.00	2000 270.00
GERMANY	114.15	0.00	85.10	0.00
GHANA	0.00	125.00	0.00	2004 243.75
GREECE	148.20	0.00	49.48	0.00
GUATEMALA	0.00	49.72	0.00	2004 141.42
GUYANA	0.00	0.00	0.00	2000 551.88
HONDURAS	0.00	78.00	0.00	2004 147.50
HUNGARY	0.00	0.00	0.00	2000 428.97
INDIA	0.00	135.77	0.00	2004 148.99
INDONESIA	0.00	58.45	0.00	2004 191.83
IRELAND	104.37	0.00	61.20	0.00
ISRAEL	0.00	10.04	0.00	2000 149.57
ITALY	159.93	0.00	71.54	0.00
JAPAN	0.00	0.00	0.00	2000 842.00
KOREA REP.	0.00	29.10	0.00	2004 1014.21
KUWAIT	0.00	115.00	0.00	2004 180.00
MADAGASCAR	0.00	260.00	0.00	2004 41.50
MALAYSIA	0.00	4.48	0.00	2004 185.25
MEXICO	0.00	30.00	0.00	2004 152.64
MOROCCO	0.00	209.17	0.00	2004 194.43
MYANMAR	0.00	46.77	0.00	2004 202.51
NAMIBIA	0.00	44.04	0.00	2004 138.33
NETHERLANDS	140.14	0.00	79.22	0.00
NEW ZEALAND	0.00	0.00	0.00	2000 600.30
NICARAGUA	0.00	44.44	0.00	2004 750.44
NORWAY	0.00	217.90	0.00	2000 342.77
PAKISTAN	0.00	100.00	0.00	2004 110.40
PHILIPPINES	0.00	54.11	0.00	2004 147.20
POLAND	0.00	10.00	0.00	2000 199.70
PORTUGAL	159.71	0.00	71.51	0.00
ROMANIA	0.00	20.00	0.00	2000 91.34
RUSSIA	0.00	27.00	0.00	2004 209.00
SLOVAK REP.	0.00	4.71	0.00	2000 34.67
SOUTH AFRICA	0.00	45.41	0.00	2000 89.79
SPAIN	141.57	0.00	71.79	0.00
SR LANKA	0.00	44.00	0.00	2004 159.04
SWEDEN	0.00	44.81	0.00	2004 241.21
SWITZERLAND	138.51	0.04	89.01	0.05
TAIWAN	104.73	0.50	0.00	21.00
THAILAND	0.00	0.00	0.00	2000 180.00
TRINIDAD AND TOBAGO	0.00	106.32	0.00	139.74
TURKEY	0.00	208.00	0.00	2004 147.27
UK	104.72	0.00	47.25	0.00
URUGUAY	0.00	25.00	0.00	2004 109.33
USA	0.79	0.00	2.21	0.00
VENEZUELA	0.00	90.01	0.00	2004 215.00
ZAMBIA	0.00	0.00	0.00	2004 114.33

Annex Table 5 - Coarse Grains - Aggregated Tariff Equivalents

	Base Rates		Round Rates		Year of Production		Changes	
	Specific Ad Valorem	Specific Ad Valorem	Specific Ad Valorem	Specific Ad Valorem	legisla.	Prices	Specific Ad Valorem	Specific Ad Valorem
	US\$	%	US\$	%		US\$	%	%
ARGENTINA	0.00	39.00	0.00	38.00	2004	194.41	0.0	0.0
AUSTRALIA	0.05	0.25	0.00	0.13	2000	85.13	-100.0	-48.0
AUSTRIA	282.44	0.00	239.70	0.00	2000	289.31	-13.1	0.0
BELGIUM	167.97	0.00	86.74	0.00	2000	199.38	-18.3	0.0
BENIN	0.00	79.00	0.00	79.00	2004	250.00	0.0	0.0
BRAZIL	0.00	38.78	0.00	30.14	2004	414.48	0.0	-22.3
CANADA	0.00	510.00	0.00	510.00	2004	175.25	0.0	0.0
CHINA	4.00	17.35	0.00	15.03	2000	71.35	-97.3	-4.7
CHILE	0.00	35.00	0.00	25.00	2004	128.48	0.0	-28.4
CHINA P. REP.	0.00	106.64	0.00	58.80	2004	119.78	0.0	-44.9
COLOMBIA	0.00	119.24	0.00	119.94	2004	209.79	0.0	-10.0
COMO	0.00	30.00	0.00	30.00	2004	249.32	0.0	0.0
COSTA RICA	0.00	29.01	0.00	24.92	2004	155.98	0.0	-8.3
CUBA	0.00	40.00	0.00	40.00	2004	195.43	0.0	0.0
CYPRUS	1.84	221.73	1.49	149.73	2000	121.29	-24.8	-24.1
CZECH REP.	0.00	23.54	0.00	20.07	2000	106.99	0.0	-14.8
DEMOCRATIC REP.	140.05	0.00	71.79	0.00	2000	142.70	-55.1	0.0
DOMINICAN REP.	0.00	40.00	0.00	40.00	2004	135.13	0.0	0.0
EGYPT	0.00	15.54	0.00	10.26	2004	130.48	0.0	-33.1
EL SALVADOR	0.00	50.00	0.00	25.00	2004	89.48	0.0	-50.0
FIJI	0.00	40.00	0.00	40.00	2004	110.00	0.0	0.0
FINLAND	304.84	218.04	258.00	181.12	2000	177.59	-15.1	-15.2
FRANCE	161.90	0.00	77.80	0.00	2000	160.00	-51.9	0.0
GABON	0.00	240.00	0.00	240.00	2004	230.00	0.0	0.0
GERMANY	233.54	0.00	148.81	0.00	2000	140.00	-36.0	0.0
GHANA	0.00	125.00	0.00	88.00	2004	250.00	0.0	-20.8
GREECE	159.86	0.00	73.65	0.00	2000	172.55	-97.9	0.0
HONDURAS	0.00	45.00	0.00	19.89	2004	188.48	0.0	-13.4
HUNGARY	0.00	140.00	0.00	140.00	2004	551.88	0.0	0.0
INDONESIA	0.00	38.00	0.00	35.00	2004	154.67	0.0	-7.9
INDONESIA	0.00	42.29	0.00	32.22	2000	89.42	0.0	-25.3
INDIA	0.00	102.37	0.00	100.55	2004	131.89	0.0	-11.8
INDONESIA	0.00	12.37	0.00	10.23	2004	181.93	0.0	-17.3
IRELAND	190.01	0.00	74.34	0.00	2000	155.30	-91.1	0.0
ISRAEL	0.00	81.17	0.00	59.52	2000	125.77	0.0	-24.9
ITALY	159.88	0.00	75.05	0.00	2000	223.77	-52.8	0.0
JAPAN	233.76	5.45	188.19	2.22	2000	1059.52	-15.2	-35.3
KOREA REP.	0.00	120.18	0.00	104.08	2004	104.08	0.0	-10.1
KUWAIT	0.00	115.00	0.00	115.00	2004	140.00	0.0	0.0
MADAGASCAR	0.00	290.00	0.00	280.00	2004	41.58	0.0	0.0
MALAYSIA	0.41	10.40	0.07	7.40	2004	185.25	-92.9	-28.9
MEXICO	0.00	85.72	0.00	84.19	2004	175.42	0.0	0.0
MOROCCO	0.00	144.09	0.00	109.63	2004	149.23	0.0	-23.9
MYANMAR	0.00	10.79	0.00	10.79	2004	202.51	0.0	0.0
NAMIBIA	0.00	44.00	0.00	33.00	2004	130.00	0.0	-25.0
NETHERLANDS	143.44	0.00	81.49	0.00	2000	221.32	-50.2	0.0
NEW ZEALAND	0.00	3.14	0.00	1.95	2000	90.50	0.0	-41.5
NICARAGUA	0.00	40.00	0.00	40.00	2004	171.35	0.0	-23.3
NORWAY	0.00	390.36	0.00	279.53	2000	570.55	0.0	-28.4
PAKISTAN	0.00	100.00	0.00	100.00	2004	95.70	0.0	0.0
PHILIPPINES	0.00	46.25	0.00	35.49	2004	133.36	0.0	-23.3
POLAND	112.99	12.11	85.29	7.47	2000	127.47	-35.9	-39.0
PORTUGAL	155.83	0.00	79.51	0.00	2000	274.47	-49.0	0.0
ROMANIA	0.00	293.18	0.00	234.54	2000	112.22	0.0	-20.0
SINGAPORE	0.00	27.00	0.00	10.00	2004	10.00	0.0	-47.0
SLOVAK REP.	0.00	23.56	0.00	20.07	2000	106.99	0.0	-14.8
SOUTH AFRICA	0.00	69.06	0.00	42.87	2000	128.34	0.0	-37.9
SPAIN	180.14	0.00	72.35	0.00	2000	185.49	-54.9	0.0
ST. LUCIA	0.00	86.00	0.00	50.00	2004	100.00	0.0	-34.2
SWEDEN	125.85	0.00	103.12	0.71	2000	182.18	-14.6	-16.5
THAILAND	91.59	54.47	55.42	28.40	2004	78.91	-35.0	-14.0
TRINIDAD AND TOBAGO	0.00	115.00	0.00	115.00	2004	180.00	0.0	0.0
TURKEY	0.00	89.87	0.00	78.39	2004	149.48	0.0	-19.3
TURKEY	0.00	197.47	0.00	175.67	2004	103.04	0.0	-10.0
UK	141.95	0.00	75.88	0.00	2000	70.72	-53.2	0.0
URUGUAY	0.00	40.09	0.00	46.60	2004	127.60	0.0	16.2
USA	3.20	0.01	0.88	0.01	2000	104.18	-73.1	0.0
VENEZUELA	0.00	102.94	0.00	92.00	2004	100.00	0.0	-10.2
ZAMBIA	0.00	0.00	0.00	0.00	2004	100.00	0.0	0.0

Annex Table 6 - Fats and Oils - Aggregated Tariff Equivalents

	Base Rates		Bound Rates		Year of Producer		Change	
	Specific Ad Valorem	Specific Ad Valorem	Specific Ad Valorem	Specific Ad Valorem	Impl.	Prices	Specific Ad Valorem	Specific Ad Valorem
	US\$	4	US\$	4	US\$	US\$	4	4
ARGENTINA	0.00	38.00	0.00	37.34	2004	297.99	0.0	-1.7
AUSTRALIA	3.55	4.44	0.00	3.88	2000	178.87	-100.0	-16.4
AUSTRIA	354.30	3.00	110.38	0.40	2000	369.77	-51.9	-63.6
BELGIUM	50.27	5.33	32.81	3.34	2000	438.08	-35.0	-27.3
BENIN	0.00	94.45	0.00	94.45	2004	137.63	0.0	0.0
BRAZIL	0.00	47.69	0.00	36.02	2004	300.00	0.0	-24.5
CANADA	0.00	310.00	0.00	210.00	2004	150.00	0.0	0.0
CAMEROON	0.51	2.43	0.33	1.54	2000	155.24	-35.3	-35.8
CHILE	0.00	35.00	0.00	27.87	2004	283.85	0.0	-20.4
CHINA P. REP.	0.00	74.38	0.00	48.18	2004	249.72	0.0	-35.0
COLOMBIA	0.00	200.94	0.00	114.58	2004	640.57	0.0	-33.0
CONGO	0.00	30.00	0.00	30.00	2004	200.00	0.0	0.0
COSTA RICA	0.00	53.83	0.00	39.32	2004	334.47	0.0	-24.1
CUBA	0.00	40.00	0.00	40.00	2004	144.87	0.0	0.0
CYPRUS	60.24	133.12	61.00	100.61	2004	500.00	-24.0	-24.3
CZECH REP.	0.00	23.00	0.00	17.98	2000	500.00	0.0	-21.9
DENMARK	38.84	2.30	25.11	1.41	2000	430.00	-35.1	-28.7
DOMINICAN REP.	0.00	40.00	0.00	40.00	2004	100.00	0.0	0.0
EGYPT	0.00	21.50	0.00	13.24	2004	300.00	0.0	-19.8
EL SALVADOR	0.00	72.76	0.00	56.85	2004	300.00	0.0	-21.9
FIJI	0.00	40.07	0.00	40.02	2004	101.02	0.0	-0.1
FINLAND	0.00	269.54	0.00	171.93	2000	400.00	0.0	-36.2
FRANCE	30.45	2.55	22.15	1.60	2000	630.00	-27.3	-37.3
GABON	0.00	280.00	0.00	280.00	2004	100.00	0.0	0.0
GERMANY	0.37	3.31	2.09	2.09	2000	630.00	-35.3	-36.8
GHANA	0.00	325.00	0.00	68.00	2004	1147.08	0.0	-20.4
GREECE	1192.61	0.76	953.13	0.47	2000	430.00	-20.1	-36.5
GUATEMALA	0.00	360.45	0.00	243.74	2004	111.61	0.0	-10.5
GUYANA	0.00	160.00	0.00	160.00	2004	100.00	0.0	0.0
HONDURAS	0.00	36.00	0.00	35.00	2004	200.00	0.0	-7.4
HONGKONG	0.00	54.37	0.00	22.34	2000	214.44	0.0	-62.0
INDIA	0.00	179.27	0.00	171.02	2004	335.54	0.0	-3.5
INDONESIA	0.00	58.58	0.00	60.50	2004	492.03	0.0	-20.8
IRELAND	25.41	4.34	17.34	2.88	2000	630.00	-32.3	-36.8
ISRAEL	0.00	87.81	0.00	52.64	2000	379.45	0.0	-22.3
ITALY	425.89	1.40	495.63	1.00	2000	630.00	-20.8	-37.5
JAPAN	144.73	5.19	107.30	3.21	2000	400.00	-25.9	-60.3
KOREA REP.	0.00	331.55	0.00	287.34	2004	400.00	0.0	-10.4
KUWAIT	0.00	115.00	0.00	115.00	2004	870.00	0.0	0.0
MADAGASCAR	0.00	260.00	0.00	260.00	2004	250.00	0.0	0.0
MALAYSIA	0.22	11.44	0.18	4.34	2004	274.11	-18.2	-20.1
MEXICO	55.18	46.31	69.66	60.33	2004	149.11	-10.0	-12.9
MOROCCO	0.00	189.07	0.00	140.32	2004	441.14	0.0	-24.2
MYANMAR	0.00	19.25	0.00	19.25	2004	100.00	0.0	0.0
NARINIA	0.00	83.72	0.00	51.76	2004	300.00	0.0	-36.2
NETHERLANDS	21.85	4.47	14.55	3.07	2000	430.00	-33.7	-38.2
NEW ZEALAND	0.00	2.58	0.00	0.74	2000	125.61	0.0	-71.3
NICARAGUA	0.00	83.77	0.00	41.54	2004	300.00	0.0	-23.5
NORWAY	8.81	12.89	1.95	11.18	2000	450.00	-70.5	-13.3
PAKISTAN	0.00	100.00	0.00	100.00	2004	250.00	0.0	0.0
PHILIPPINES	0.00	87.48	0.00	48.92	2004	250.00	0.0	-27.3
POLAND	69.19	71.02	11.70	64.97	2000	278.11	-35.8	-36.7
PORTUGAL	224.89	3.52	177.16	2.20	2000	430.00	-20.4	-37.5
ROMANIA	0.00	183.17	0.00	144.44	2008	225.40	0.0	-13.8
SINGAPORE	0.00	27.00	0.00	10.00	2004	300.00	0.0	-83.0
SLOVAK REP.	0.00	21.00	0.00	17.98	2000	500.00	0.0	-21.9
SOUTH AFRICA	0.00	114.82	0.00	64.86	2008	145.44	0.0	-44.4
SPAIN	849.30	1.44	521.08	1.17	2000	430.00	-20.4	-36.4
SRI LANKA	0.00	64.00	0.00	50.00	2004	250.00	0.0	-24.2
SWEDEN	0.00	111.77	0.00	62.44	2004	300.00	0.0	-43.8
SWITZERLAND	49.42	1.73	51.44	1.11	2000	394.94	-17.1	-35.1
THAILAND	36.48	69.27	14.99	59.63	2004	300.00	-47.9	-33.9
TRINIDAD AND TOBAGO	0.00	115.00	0.00	115.00	2004	430.00	0.0	0.0
TUNISIA	0.00	148.31	0.00	80.45	2004	378.44	0.0	-33.1
TURKEY	0.00	19.04	0.00	32.11	2004	228.46	0.0	-17.8
UK	74.19	3.46	54.76	2.09	2000	430.00	-24.2	-29.8
URUGUAY	0.00	23.84	0.00	35.00	2004	245.98	0.0	64.2
USA	8.92	15.30	4.41	12.37	2000	213.47	-50.3	-20.9
YEMEN	0.00	122.76	0.00	109.16	2004	431.31	0.0	-11.1
ZAMBIA	0.00	0.00	0.00	0.00	2004	200.20	0.0	0.0

Annex Table 7 - Butter - Aggregated Tariff Equivalents

	Base Rates		Bound Rates		Year of Production		Changes	
	Specific Ad Valorem	Specific Ad Valorem	Specific Ad Valorem	Specific Ad Valorem	Implm. Prices	Specific Ad Valorem	Specific Ad Valorem	Specific Ad Valorem
	US\$	%	US\$	%	US\$	%	US\$	%
ARGENTINA	0.00	38.00	0.00	38.00	2004	776.52	0.0	0.0
AUSTRALIA	71.90	0.00	0.00	3.00	2000	709.14	-100.0	ERR
AUSTRIA	5375.18	0.00	4589.27	0.00	2000	2854.88	-15.0	0.0
BELGIUM	3279.92	0.00	2098.93	0.00	2000	3600.00	-34.0	0.0
BENIN	0.00	78.00	0.00	78.00	2004	1178.54	0.0	0.0
BRAZIL	0.00	55.00	0.00	55.00	2004	2645.84	0.0	0.0
CANADON	0.00	310.00	0.00	310.00	2004	4197.40	0.0	0.0
CANADA	0.00	281.40	0.00	288.70	2000	1821.55	-15.0	0.0
CHILE	0.00	35.00	0.00	31.50	2004	1407.23	-10.0	0.0
CHINA P. REP.	0.00	70.00	0.00	40.00	2004	890.88	0.0	-42.9
COLOMBIA	0.00	124.00	0.00	115.00	2004	900.75	-10.0	0.0
CONGO	0.00	70.00	0.00	30.00	2004	2821.51	0.0	0.0
COSTA RICA	0.00	113.00	0.00	85.00	2004	1210.88	0.0	-14.4
CUBA	0.00	40.00	0.00	40.00	2004	794.78	0.0	0.0
CYPRUS	5744.28	33.00	8364.68	25.00	2004	1089.61	-24.0	-24.2
CZECH REP.	0.00	82.00	0.00	48.00	2000	3408.27	0.0	-17.3
DENMARK	3278.02	0.00	2098.93	0.00	2000	3800.00	-34.0	0.0
DOMINICAN REP.	0.00	40.00	0.00	48.00	2004	878.48	0.0	0.0
EGYPT	0.00	15.00	0.00	30.00	2004	1057.02	0.0	-33.3
EL SALVADOR	0.00	40.00	0.00	30.00	2004	1287.00	0.0	-25.0
FIJI	0.00	40.00	0.00	40.00	2004	781.51	0.0	0.0
FINLAND	0.00	566.00	0.00	481.00	2000	3033.51	0.0	-15.0
FRANCE	3278.02	0.00	2098.93	0.00	2000	3800.00	-34.0	0.0
GABON	0.00	260.00	0.00	260.00	2004	1500.00	0.0	0.0
GERMANY	3278.02	0.00	2098.93	0.00	2000	3600.00	-34.0	0.0
GHANA	0.00	129.00	0.00	98.00	2004	1430.33	0.0	-20.0
GREECE	3279.02	0.00	2098.93	0.00	2000	3600.00	-34.0	0.0
GUATEMALA	0.00	115.00	0.00	103.00	2004	1181.28	0.0	-10.4
GUYANA	0.00	180.00	0.00	160.00	2004	1462.40	0.0	0.0
HONDURAS	0.00	38.00	0.00	35.00	2004	2598.47	0.0	-7.8
HUNGARY	0.00	159.00	0.00	101.80	2000	147.37	0.0	-36.0
INDIA	0.00	100.00	0.00	40.00	2004	1838.78	0.0	-80.0
INDONESIA	0.00	45.00	0.00	40.00	2004	2040.74	0.0	-11.3
IRELAND	3279.02	0.00	2098.93	0.00	2000	3600.00	-34.0	0.0
ISRAEL	0.00	190.00	0.00	162.00	2000	1595.49	-14.0	-14.7
ITALY	3279.02	0.00	2098.93	0.00	2000	3600.00	-34.0	0.0
JAPAN	8082.90	35.00	6801.43	29.80	2000	3050.77	-15.0	-14.9
KOREA REP.	0.00	18.00	0.00	8.00	2004	1821.27	0.0	0.0
KUWAIT	0.00	115.00	0.00	115.00	2004	1800.00	0.0	0.0
MADAGASCAR	0.00	280.00	0.00	280.00	2004	3111.68	0.0	0.0
MALAYSIA	103.98	5.00	82.11	4.04	2004	2000.00	-18.0	-18.0
MEXICO	0.00	20.00	0.00	10.00	2004	1283.19	0.0	0.0
MOROCCO	0.00	45.00	0.00	34.00	2004	3180.32	0.0	-24.4
NETHERLANDS	0.00	38.50	0.00	38.50	2004	1278.39	0.0	0.0
NAMIBIA	0.00	158.00	0.00	79.00	2004	1525.39	0.0	-50.0
NETHERLANDS	3279.02	0.00	2098.93	0.00	2000	3600.00	-34.0	0.0
NEW ZEALAND	0.00	10.00	0.00	8.40	2000	1000.00	0.0	-38.0
NICARAGUA	0.00	40.00	0.00	40.00	2004	1500.00	0.0	-33.3
NORWAY	0.00	403.00	0.00	341.00	2000	2185.57	0.0	-14.9
PAKISTAN	0.00	300.00	0.00	300.00	2004	3011.58	0.0	0.0
PHILIPPINES	0.00	30.00	0.00	40.00	2004	880.86	0.0	-20.0
POLAND	0.00	180.00	0.00	102.00	2000	822.64	0.0	-36.3
PORTUGAL	3279.02	0.00	2098.93	0.00	2000	3600.00	-34.0	0.0
ROMANIA	0.00	280.00	0.00	200.00	2000	878.14	0.0	-20.0
SINGAPORE	0.00	27.00	0.00	0.00	2004	1488.06	-100.0	-100.0
SLOVAK REP.	0.00	82.00	0.00	88.00	2000	3408.27	0.0	-17.3
SOUTH AFRICA	0.00	158.00	0.00	79.00	2000	334.39	0.0	-50.0
SPAIN	3279.02	0.00	2098.93	0.00	2000	3600.00	-34.0	0.0
SRI LANKA	0.00	88.00	0.00	50.00	2004	805.03	0.0	-24.2
SWEDEN	0.00	159.00	0.00	79.00	2004	552.68	0.0	-50.0
SWITZERLAND	3661.07	0.00	1585.40	0.00	2000	3511.37	-15.1	0.0
THAILAND	0.00	20.00	0.00	18.00	2004	1231.82	0.0	-10.2
TRINIDAD AND TOBAGO	0.00	115.00	0.00	115.00	2004	2498.18	0.0	0.0
TURKISTAN	0.00	144.00	0.00	108.00	2004	1741.90	0.0	-38.0
TURKEY	0.00	200.00	0.00	180.00	2004	1281.18	0.0	-10.0
UK	3279.02	0.00	2098.93	0.00	2000	3800.00	-34.0	0.0
URUGUAY	0.00	25.00	0.00	55.00	2004	2657.16	0.0	120.0
USA	1814.21	0.01	1542.93	0.02	2000	1321.45	-15.0	-15.0
VENEZUELA	0.00	102.00	0.00	92.00	2004	1753.82	0.0	-5.8
YAMSA	0.00	0.00	0.00	0.00	2004	724.22	0.0	0.0

Annex Table 8 - Oilmeals - Aggregated Tariff Equivalents

	Base Rates		Bound Rates		Year of Producer		Changes	
	Specific	Ad Valorem	Specific	Ad Valorem	Implem.	Prices	Specific	Ad Valorem
	US\$/	%	US\$/	%		US\$/	US\$/	%
ARGENTINA	0.00	30.00	0.00	30.00	2004	199.06	0.0	0.0
AUSTRALIA	0.00	0.20	0.00	0.14	2000	329.92	0.0	-50.0
AUSTRIA	0.14	0.00	0.46	0.00	2000	132.26	-14.8	0.0
BELGIUM	0.00	0.00	0.00	0.00	2000	280.00	0.0	0.0
BELIZE	0.00	79.00	0.00	79.00	2004	127.66	0.0	0.0
BRASIL	0.00	0.00	0.00	0.00	2004	200.00	0.0	0.0
CANADIAN	0.00	310.00	0.00	310.00	2004	350.00	0.0	-0.8
CANADA	0.00	0.01	0.00	0.01	2000	374.52	0.0	0.0
CHILE	0.00	35.00	0.00	31.50	2004	127.63	0.0	-10.0
CHINA P. REP.	0.00	70.02	0.00	19.01	2004	104.42	0.0	-10.0
COLOMBIA	0.00	123.73	0.00	105.39	2004	200.00	0.0	-13.4
CONGO	0.00	30.00	0.00	30.00	2004	200.00	0.0	0.0
COSTA RICA	0.00	11.75	0.00	4.24	2004	154.84	0.0	-44.7
CUBA	0.00	40.00	0.00	40.00	2004	374.13	0.0	0.0
CYPRUS	0.00	53.06	0.00	40.05	2004	200.00	0.0	-24.5
CZECH REP.	0.00	0.00	0.00	0.00	2000	250.00	0.0	0.0
DEMARS	0.00	0.00	0.00	0.00	2000	200.00	0.0	0.0
DOMINICAN REP.	0.00	40.00	0.00	40.00	2004	200.00	0.0	0.0
EGYPT	0.00	35.00	0.00	10.00	2004	200.00	0.0	-33.3
EL SALVADOR	0.00	20.90	0.00	20.90	2004	200.00	0.0	0.0
FIJI	0.00	40.00	0.00	40.00	2004	44.47	0.0	0.0
FINLAND	705.51	0.24	476.81	0.14	2000	200.00	-14.8	-33.3
FRANCE	0.00	0.02	0.00	0.01	2000	200.00	0.0	-50.0
GABON	0.00	260.00	0.00	260.00	2004	200.00	0.0	0.0
GERMANY	0.00	0.00	0.00	0.00	2000	200.00	0.0	0.0
GHANA	0.00	122.40	0.00	71.37	2004	150.00	0.0	-20.4
GREECE	0.00	0.03	0.00	0.02	2000	200.00	0.0	-33.3
GUATEMALA	0.00	45.00	0.00	40.00	2004	245.39	0.0	-11.1
GUYANA	0.00	160.00	0.00	140.00	2004	200.00	0.0	0.0
HONDURAS	0.00	30.00	0.00	35.00	2004	200.00	0.0	-7.9
HUNGARY	0.00	0.74	0.00	0.47	2000	166.00	0.0	-36.5
INDIA	0.00	100.00	0.00	100.00	2004	150.00	0.0	0.0
INDONESIA	0.00	50.07	0.00	40.15	2004	150.00	0.0	-19.8
IRELAND	0.00	0.04	0.00	0.04	2000	200.00	0.0	-33.3
ISRAEL	0.00	30.00	0.00	25.00	2000	217.17	0.0	-16.7
ITALY	0.00	0.01	0.00	0.01	2000	200.00	0.0	0.0
JAPAN	0.00	0.00	0.00	0.00	2000	212.00	0.0	0.0
KOREA REP.	0.00	50.61	0.00	42.70	2004	220.00	0.0	-15.6
KUWAIT	0.00	135.00	0.00	115.00	2004	200.00	0.0	0.0
KAZAKHSTAN	0.00	200.00	0.00	200.00	2004	150.00	0.0	0.0
MALAYSIA	0.00	32.47	0.00	9.98	2004	200.00	0.0	-20.0
MEXICO	0.00	27.35	0.00	24.04	2004	194.87	0.0	-12.1
MOROCCO	0.00	102.03	0.00	71.53	2004	200.00	0.0	-24.0
MYANMAR	0.00	20.84	0.00	20.84	2004	200.00	0.0	0.0
NAMIBIA	0.00	0.00	0.00	0.00	2000	200.00	0.0	0.0
NETHERLANDS	0.00	0.00	0.00	0.00	2000	200.00	0.0	0.0
NEW ZEALAND	0.00	4.44	0.00	2.01	2000	110.58	-100.0	-54.9
NICARAGUA	0.00	40.00	0.00	40.00	2004	200.00	0.0	0.0
NORWAY	0.00	249.30	0.00	174.42	2000	200.00	0.0	-30.0
PAKISTAN	0.00	100.00	0.00	100.00	2004	150.00	0.0	0.0
PHILIPPINES	0.00	40.45	0.00	27.01	2004	161.00	0.0	-31.1
POLAND	0.00	14.13	0.00	7.87	2000	199.98	0.0	-44.2
PORTUGAL	0.00	0.01	0.00	0.01	2000	200.00	0.0	0.0
ROMANIA	0.00	80.00	0.00	71.00	2004	212.00	0.0	-10.0
SINGAPORE	0.00	27.00	0.00	10.00	2004	200.00	0.0	-63.0
SLOVAK REP.	0.00	0.00	0.00	0.00	2000	250.00	0.0	0.0
SOUTH AFRICA	0.00	52.93	0.00	34.09	2000	200.00	0.0	-35.4
SPAIN	0.00	0.03	0.00	0.02	2000	200.00	0.0	-33.3
SRI LANKA	0.00	44.00	0.00	50.00	2004	147.88	0.0	-24.2
SWITZERLAND	0.00	53.00	0.00	34.00	2004	200.00	0.0	-25.8
SWEDEN	375.06	0.72	107.40	0.12	2000	100.00	-30.0	-10.5
THAILAND	0.10	119.18	0.01	107.00	2004	200.00	-30.0	-30.2
TRINIDAD AND TOBAGO	0.00	115.00	0.00	115.00	2004	244.62	0.0	0.0
TUNISIA	0.00	26.73	0.00	14.34	2004	243.01	0.0	-31.4
TURKEY	0.00	15.04	0.00	13.52	2004	344.00	0.0	-30.1
UK	0.00	0.01	0.00	0.01	2000	200.00	0.0	0.0
UNITED STATES	0.00	50.00	0.00	35.00	2004	220.02	0.0	-30.0
USA	0.00	0.04	0.00	0.00	2000	200.00	-25.0	0.0
VENEZUELA	0.00	130.75	0.00	117.83	2004	200.00	0.0	-9.8
ZAMBIA	0.00	0.00	0.00	0.00	2004	150.00	0.0	0.0

Annex Table 9 - Beef - Aggregated Tariff Equivalents

	Base Rates		Bound Rates		Year of Production		Changes	
	Specific Ad Valorem	Specific Ad Valorem	Specific Ad Valorem	Specific Ad Valorem	Imp. Price	Specific Ad Valorem	Specific Ad Valorem	Specific Ad Valorem
	US\$	%	US\$	%	US\$	%	%	%
ARGENTINA	0.00	10.00	0.00	10.00	2004	1960.30	0.0	0.0
AUSTRALIA	0.00	0.17	0.00	0.05	2000	1283.63	0.0	-47.1
AUSTRIA	2310.40	14.89	2757.70	16.12	2000	3549.44	-14.7	-13.0
BELGIUM	2465.15	18.47	1579.24	11.94	2000	3551.46	-35.5	-35.8
BENIN	0.00	79.00	0.00	79.00	2004	1255.20	0.0	0.0
BRAZIL	0.00	20.39	0.00	44.22	2004	5867.21	0.0	114.9
CAMEROON	0.00	116.60	0.00	310.00	2004	1810.00	0.0	7.0
CANADA	0.00	31.40	0.05	21.55	2000	2472.44	-37.5	-31.6
CHILE	0.00	35.00	0.00	25.00	2004	1471.54	0.0	-29.6
CHINA P. REP.	0.00	41.00	0.00	39.53	2004	3188.88	0.0	-31.5
COLOMBIA	0.00	113.51	0.00	57.64	2004	566.54	0.0	-14.0
CONGO	0.00	30.00	0.00	30.00	2004	3035.20	0.0	0.0
COSTA RICA	0.00	55.00	0.00	45.00	2004	1118.76	0.0	-18.2
CUBA	0.00	40.00	0.00	40.00	2004	1612.20	0.0	0.0
CYPRUS	6040.20	33.53	4066.71	25.40	2004	2677.20	-24.0	-24.2
CZECH REP.	0.00	48.97	0.00	39.99	2000	6647.14	0.0	-19.4
DEMARE	2485.91	18.24	1579.38	13.59	2004	2918.34	-34.0	-34.5
DOMINICAN REP.	0.00	40.00	0.00	40.00	2004	2755.50	0.0	0.0
EGYPT	0.00	10.70	0.00	6.89	2004	3295.71	0.0	-36.1
EL SALVADOR	17.00	80.40	0.00	55.02	2004	2021.61	0.0	-26.8
FIJI	0.00	40.00	0.00	40.00	2004	2017.20	0.0	0.0
FINLAND	0.00	392.33	0.00	324.53	2000	6665.40	0.0	-17.3
FRANCE	3576.59	19.28	2282.88	11.56	2004	7644.44	-35.0	-37.1
GABON	0.00	240.00	0.00	240.00	2004	7599.83	0.0	0.0
GERMANY	2083.03	17.82	1912.72	13.10	2000	2275.04	-31.9	-37.3
GHANA	0.00	125.00	0.00	55.00	2004	1491.43	0.0	-20.0
GREECE	3117.43	15.21	1556.75	12.15	2000	3298.43	-35.5	-36.5
GUATEMALA	0.00	60.79	0.00	67.29	2004	1897.92	0.0	-22.2
GUAYANA	0.00	180.00	0.00	160.00	2004	3245.52	0.0	0.0
HONDURAS	0.00	39.00	0.00	35.00	2004	3900.00	0.0	-7.9
HUNGARY	0.00	54.61	0.00	62.60	2000	1814.23	0.0	-33.7
INDIA	0.00	139.98	0.00	100.99	2004	777.99	0.0	-27.9
INDONESIA	0.00	82.27	0.00	40.00	2004	2931.88	0.0	-54.4
IRELAND	3229.84	18.38	2071.20	11.56	2000	3338.60	-35.0	-37.1
ISRAEL	0.00	197.03	0.00	147.91	2000	2172.77	0.0	-18.0
ITALY	2517.53	14.80	1612.43	11.53	2000	4265.58	-36.0	-36.5
JAPAN	17.58	92.23	14.74	67.44	2000	3582.34	-15.0	-45.7
JORDAN REP.	0.00	75.45	0.00	87.11	2004	4431.30	0.0	-31.3
KUWAIT	0.00	115.00	0.00	115.00	2004	2500.00	0.0	0.0
KAZAKHASTAN	0.00	280.00	0.00	280.00	2004	1007.43	0.0	0.0
MALAYSIA	0.00	18.55	0.00	14.25	2004	3384.65	0.0	-24.0
MEXICO	0.00	47.39	0.00	41.13	2004	2450.40	0.0	-32.2
MOROCCO	0.00	314.09	0.00	239.91	2004	3387.84	0.0	-26.1
MYANMAR	0.00	165.00	0.00	145.00	2004	1667.27	0.0	0.0
NEPAL	0.00	219.42	0.00	100.40	2004	1466.66	0.0	-54.0
NETHERLANDS	2367.10	19.42	3514.23	11.49	2000	3042.43	-35.9	-36.5
NEW ZEALAND	0.00	2.81	0.00	1.97	2000	875.47	0.0	-35.9
NICARAGUA	0.00	44.79	0.00	49.59	2004	5000.00	0.0	-23.5
NORWAY	0.00	405.03	0.00	344.02	2004	5141.40	0.0	-35.1
PAKISTAN	0.00	59.63	0.00	55.63	2004	844.48	0.0	0.0
PHILIPPINES	0.00	51.75	0.00	35.95	2004	1772.44	0.0	-27.3
POLAND	2237.40	29.80	1432.44	18.18	2000	1649.86	-36.0	-36.9
PORTUGAL	3152.12	18.80	2020.16	11.85	2000	4278.05	-35.0	-36.0
ROMANIA	0.00	319.28	0.00	287.08	2000	1150.45	0.0	-30.0
SINGAPORE	0.00	27.00	0.00	5.55	2004	3000.00	0.0	-64.5
SLOVAK REP.	0.00	40.97	0.00	39.99	2000	4867.14	0.0	-18.4
SOUTH AFRICA	0.00	104.59	0.00	44.47	2000	1194.68	0.0	-39.7
SPAIN	3117.46	18.03	1597.50	12.05	2000	3811.27	-35.9	-36.7
SRI LANKA	0.00	44.00	0.00	50.00	2004	431.75	0.0	-26.2
SWEDEN	0.00	105.23	0.00	63.63	2004	1114.47	0.0	-39.5
SWITZERLAND	0.00	99.04	0.00	79.51	2000	3494.09	-12.5	-24.4
THAILAND	61.59	59.04	41.26	47.25	2004	1562.16	-33.0	-20.0
TRINIDAD AND TOBAGO	0.00	119.00	0.00	119.00	2004	3647.09	0.0	0.0
TURKISTAN	0.00	118.85	0.00	83.36	2004	1473.70	0.0	-28.8
TURKEY	0.00	247.75	0.00	223.00	2004	2521.67	0.0	-18.0
UK	3002.49	18.32	1924.15	31.58	2000	2915.94	-35.9	-36.7
URUGUAY	0.00	36.00	0.00	48.06	2004	1305.88	0.0	38.1
USA	5.76	26.55	4.43	20.80	2000	2360.79	-54.6	-15.0
VENEZUELA	0.00	105.09	0.00	89.91	2004	3357.20	0.0	-18.4
ZAMBIA	0.00	0.00	0.00	0.00	2004	1401.17	0.0	0.0

Annex Table 10 - Milk - Aggregated Tariff Equivalents

	Base Rates	Round Rates	Year of Producer	Changes
	Specific Ad Valorem	Specific Ad Valorem	Implen. Prices	Specific Ad Valorem
	US\$	US\$	US\$	
ARGENTINA	0.00	38.00	0.00	38.00
AUSTRALIA	45.12	0.00	36.72	0.17
AUSTRIA	844.50	0.01	725.19	0.00
BELGIUM	405.30	0.09	410.13	0.04
BENIN	0.00	79.00	0.00	79.00
BRAZIL	0.00	48.04	0.00	54.32
CAMEROON	0.00	110.00	0.00	110.00
CANADA	0.00	249.34	0.00	248.89
CHILE	0.00	35.00	0.00	27.48
CHINA P.R.EP.	0.00	37.30	0.00	32.38
COLOMBIA	0.00	173.87	0.00	156.18
CONGO	0.00	30.00	0.00	30.00
COSTA RICA	0.00	111.00	0.00	95.05
CUBA	0.00	44.23	0.00	40.00
CYPRUS	3480.51	24.97	2444.47	24.24
CZECH REP.	0.00	32.00	0.00	33.66
DEMARE	542.18	0.02	342.29	0.01
DOMINICAN REP.	0.00	40.00	0.00	40.00
EGYPT	0.00	37.45	0.00	28.36
EL SALVADOR	0.00	49.60	0.00	44.30
Fiji	0.00	40.24	0.00	40.00
FINLAND	0.00	235.46	0.00	200.03
FRANCE	590.46	0.18	386.19	0.11
GABON	0.00	240.00	0.00	240.00
GERMANY	713.15	0.00	495.35	0.00
GHANA	0.00	125.00	0.00	55.41
GREECE	473.95	0.08	205.99	0.05
GUATEMALA	0.00	104.15	0.00	90.14
GUYANA	0.00	140.00	0.00	140.00
HONDURAS	0.00	18.00	0.00	35.00
HUNGARY	0.00	86.62	0.00	53.60
INDIA	0.00	95.54	0.00	96.51
INDONESIA	0.00	71.82	0.00	41.32
IRELAND	676.70	0.07	424.24	0.02
ISRAEL	0.00	205.37	0.00	178.05
ITALY	347.39	0.02	227.85	0.03
JAPAN	594.29	27.63	505.40	23.27
KOREA REP.	0.00	69.55	0.00	59.28
KUWAIT	0.00	115.00	0.00	115.00
MADAGASCAR	0.00	240.00	0.00	280.00
MALAYSIA	3.51	3.74	2.22	2.56
MEXICO	41.46	35.44	27.71	27.14
MOROCCO	0.00	114.76	0.00	84.84
MYANMAR	0.00	35.00	0.00	75.00
NAMIBIA	0.00	214.77	0.00	96.99
NETHERLANDS	519.67	0.05	184.97	0.01
NEW ZEALAND	0.00	13.50	0.00	9.15
NICARAGUA	0.00	65.00	0.00	75.00
NORWAY	0.00	414.59	0.00	334.19
PAKISTAN	0.00	100.00	0.00	100.00
PHILIPPINES	0.00	32.10	0.00	22.40
POLAND	0.00	187.28	0.00	139.58
PORTUGAL	349.43	0.06	228.98	0.04
ROMANIA	0.00	161.38	0.00	150.57
SINGAPORE	0.00	27.00	0.00	9.72
SLOVAK REP.	0.00	22.04	0.00	25.46
SOUTH AFRICA	0.00	211.42	0.00	96.71
SPAIN	410.25	0.01	281.04	0.01
SRI LANKA	0.00	44.08	0.00	40.00
SWEDEN	0.00	214.10	0.00	96.93
SWITZER	0.00	103.32	0.00	67.70
THAILAND	7.90	104.57	0.35	63.26
TRINIDAD AND TOBAGO	0.00	115.00	0.00	115.00
TUNISIA	0.00	187.52	0.00	152.73
TURKEY	0.00	198.13	0.00	178.70
UK	402.49	0.04	245.12	0.03
URUGUAY	0.00	37.74	0.00	54.12
USA	86.14	0.00	76.34	0.00
VENUEZUELA	0.00	85.78	0.00	66.14
ZAMBIA	0.00	0.00	0.00	0.00

Annex Table 11 - Sheep and Goat Meat - Aggregated Tariff Equivalents

	Base Rates		Sound Rates		Year of Production		Changes	
	Specific Ad Valorem	Specific Ad Valorem	Specific Ad Valorem	Specific Ad Valorem	Imp. Prices	Specific Ad Valorem	Specific Ad Valorem	Specific Ad Valorem
	US\$	%	US\$	%	US\$	%	%	%
ARGENTINA	0.00	34.48	0.00	36.42	2004	1579.11	0.0	-0.2
AUSTRALIA	0.00	0.00	0.00	0.00	2000	707.76	0.0	0.0
AUSTRIA	3548.22	0.00	2541.29	0.00	2000	2981.09	-28.4	0.0
BELGIUM	2486.96	12.33	1338.93	11.37	2000	2821.44	-36.1	-34.0
BENIN	0.00	79.00	0.00	79.00	2004	1418.38	0.0	0.0
BRAZIL	0.00	25.00	0.00	35.00	2004	3757.04	0.0	40.0
CANADON	0.00	310.00	0.00	310.00	2004	2896.94	0.0	0.0
CANADA	46.78	0.00	24.28	0.00	2004	1215.44	-39.5	0.0
CHILE	0.00	35.00	0.00	29.00	2004	1844.48	0.0	-26.8
CHINA P.R.	0.00	52.31	0.00	34.70	2004	952.73	0.0	-33.7
COLOMBIA	0.00	100.00	0.00	89.92	2004	1451.18	0.0	-11.1
CORGO	0.00	30.00	0.00	30.00	2004	3835.20	0.0	0.0
COSTA RICA	0.00	55.00	0.00	42.32	2004	1475.50	0.0	-73.1
CUBA	0.00	40.00	0.00	40.00	2004	1462.40	0.0	0.0
CYPRUS	8603.40	35.30	7524.76	26.76	2004	4073.33	-24.0	-24.0
CZECH REP.	0.00	94.15	0.00	66.05	2000	4148.13	0.0	-30.0
GERMANY	2492.36	19.95	1851.09	12.77	2000	3228.07	-36.0	-34.0
DOMINICAN REP.	0.00	40.00	0.00	40.00	2004	3128.42	0.0	0.0
EGYPT	0.00	18.00	0.00	5.00	2004	2652.50	0.0	-50.0
EL SALVADOR	0.00	40.00	0.00	30.00	2004	1271.17	0.0	-25.0
FINL	0.00	90.00	0.00	40.00	2004	1130.40	0.0	0.0
FINLAND	0.00	342.00	0.00	241.00	2000	7038.15	0.0	-14.4
FRANCE	3046.67	17.50	1933.57	11.20	2000	6415.01	-36.5	-36.0
GARON	0.00	280.00	0.00	240.00	2004	6000.00	0.0	0.0
GERMANY	2888.24	75.00	1848.74	12.40	2000	3601.33	-36.0	-36.0
GHANA	0.00	125.00	0.00	86.00	2004	1834.13	0.0	-20.0
GREECE	5188.08	9.31	3168.32	5.96	2000	4116.91	-38.9	-36.0
GUATEMALA	0.00	45.00	0.00	40.00	2004	1742.64	0.0	-11.1
GUYANA	0.00	140.00	0.00	140.00	2004	7592.00	0.0	0.0
HONDURAS	0.00	30.00	0.00	35.00	2004	1268.33	0.0	-7.9
HUNGARY	0.00	52.37	0.00	30.48	2000	5058.58	0.0	-40.6
INDIA	0.00	140.00	0.00	100.00	2004	1988.73	0.0	-28.4
INDONESIA	0.00	70.00	0.00	43.10	2004	2496.66	0.0	-36.4
IRELAND	2047.56	18.66	1622.70	12.79	2000	3048.20	-36.0	-36.0
ISRAEL	0.00	148.09	0.00	109.02	2000	3972.10	0.0	-26.1
ITALY	2732.73	8.22	1704.79	9.24	2000	5823.99	-30.1	-36.0
JAPAN	0.00	0.03	0.00	0.00	2000	9409.61	0.0	-100.0
KOREA REP.	0.00	29.31	0.00	23.88	2004	4711.92	0.0	-14.0
KUWAIT	0.00	115.00	0.00	115.00	2004	1360.00	0.0	0.0
MADAGASCAR	0.00	280.00	0.00	280.00	2004	1500.29	0.0	0.0
MALAYSIA	0.00	19.99	0.00	14.99	2004	2924.30	0.0	-25.0
MEXICO	0.00	88.88	0.00	37.46	2004	2836.43	0.0	-23.9
MOROCCO	0.00	370.15	0.00	261.92	2004	3770.23	0.0	-23.9
MYANMAR	0.00	165.00	0.00	149.06	2004	1043.13	0.0	0.0
NAMIBIA	0.00	136.95	0.00	64.18	2004	2936.27	0.0	-46.9
NETHERLANDS	1607.95	14.24	2259.84	9.11	2000	5646.02	-37.4	-36.0
NEW ZEALAND	0.00	0.00	0.00	0.00	2000	777.05	0.0	0.0
NICARAGUA	0.00	62.94	0.00	47.66	2004	3466.64	0.0	-37.1
NORWAY	0.00	504.93	0.00	428.94	2000	5019.11	0.0	-15.0
PAKISTAN	0.00	100.00	0.00	100.00	2004	1438.04	0.0	0.0
PHILIPPINES	0.00	58.68	0.00	37.34	2004	1475.45	0.0	-36.7
POLAND	0.00	101.46	0.00	64.47	2000	3113.29	0.0	-36.1
PORTUGAL	4261.79	13.96	2636.07	7.40	2000	3142.41	-36.1	-36.0
ROMANIA	0.00	80.45	0.00	71.62	2000	856.05	0.0	-11.0
SINGAPORE	0.00	27.00	0.00	8.00	2004	3500.00	0.0	-70.4
SLOVAK REP.	0.00	64.35	0.00	66.05	2000	4368.13	0.0	-30.0
SOUTH AFRICA	0.00	159.47	0.00	86.34	2000	1488.28	0.0	-67.1
SPAIN	3362.34	15.79	2119.14	11.4	2000	4439.18	-37.0	-36.0
SRI LANKA	0.00	86.00	0.00	50.00	2004	1868.41	0.0	-24.2
SWAZILAND	0.00	150.28	0.00	82.96	2004	1214.68	0.0	-44.9
SWEDEN	0.03	66.82	0.02	93.46	2000	3316.51	-33.2	-40.0
THAILAND	0.00	50.00	0.00	30.00	2004	3039.54	0.0	-40.0
TRINIDAD AND TOBAGO	0.00	115.00	0.00	115.00	2004	3512.40	0.0	0.0
TUNISIA	0.00	297.58	0.00	180.00	2004	2165.05	0.0	-61.2
TURKEY	0.00	279.40	0.00	210.00	2004	2038.18	0.0	-10.0
UK	2884.30	19.99	1844.15	12.79	2000	3844.24	-36.0	-34.0
URUGUAY	0.00	59.32	0.00	33.43	2004	1073.16	0.0	-42.6
USA	81.44	0.00	70.44	0.00	2000	2493.00	-15.4	0.0
VENEZUELA	0.00	93.00	0.00	80.91	2004	2387.31	0.0	-13.0
ZAMBIA	0.00	0.00	0.00	0.00	2004	239.32	0.0	0.0

Annex Table 12 - Pigment - Aggregated Tariff Equivalents

	Base Rates		Bound Rates		Year of Producer		Changes	
	Specific Ad Valorem	Specific Ad Valorem	Specific Ad Valorem	Specific Ad Valorem	Import. Prices	Specific Ad Valorem	Specific Ad Valorem	Specific Ad Valorem
	US\$	%	US\$	%	US\$	US\$	%	%
ARGENTINA	0.00	39.00	0.00	39.00	2004	1814.03	0.0	0.0
AUSTRALIA	0.00	0.13	0.00	0.10	2000	1235.41	0.0	-22.1
AUSTRIA	1933.92	3.79	1436.28	3.23	2000	1870.88	-15.7	-14.0
BELGIUM	787.49	0.71	503.91	0.32	2000	1542.42	-34.0	-47.9
BENIN	0.00	79.89	0.00	79.00	2004	1418.38	0.0	0.0
BRAZIL	0.00	24.32	0.00	53.08	2004	3020.77	0.0	116.5
CAMBODIA	0.00	310.00	0.00	310.00	2004	2425.34	0.0	0.0
CANADA	0.00	0.04	0.00	0.03	2000	1246.74	-25.3	-25.0
CHILE	0.00	75.00	0.00	25.00	2004	1217.03	0.0	-39.4
CHINA P.R.EP.	0.00	50.24	0.00	60.00	2004	1255.70	0.0	-20.4
COLUMBIA	0.00	118.47	0.00	105.47	2004	1326.77	0.0	-11.0
COSTA	0.00	30.00	0.00	30.00	2004	1895.00	0.0	0.0
COSTA RICA	0.00	55.00	0.00	45.00	2004	1658.62	0.0	-19.2
CUBA	0.00	60.00	0.00	60.00	2004	1616.77	0.0	0.0
CYPRUS	2782.47	39.45	2031.40	29.41	2004	1581.11	-24.0	-24.9
CZECH REP.	0.00	41.92	0.00	35.21	2000	3045.30	0.0	-14.0
DEMOCRAT. REP.	1043.34	1.00	647.53	0.41	1000	1557.23	-34.0	-39.0
DOMINICAN REP.	0.00	40.00	0.00	40.00	2004	2400.00	0.0	0.0
EGYPT	0.00	89.38	0.00	71.50	2004	1447.42	0.0	-20.0
EL SALVADOR	0.00	50.00	0.00	40.00	2004	2000.00	0.0	-20.0
FIJI	0.00	40.00	0.00	40.00	2004	1864.49	0.0	0.0
FINLAND	0.00	322.35	0.00	372.72	2000	1708.74	0.0	-15.4
FRANCE	911.93	0.30	583.46	0.10	2000	1546.29	-34.0	-66.7
GABON	0.00	160.00	0.00	240.00	2004	1428.21	0.0	0.0
GERMANY	944.34	0.74	618.28	0.42	2000	1086.74	-34.0	-80.0
GHANA	0.00	125.00	0.00	99.00	2004	174.48	0.0	-20.0
GREECE	943.54	0.29	403.53	0.13	2000	1454.04	-34.0	-53.4
GUATEMALA	0.00	59.47	0.00	53.27	2004	1500.00	0.0	-10.7
GUYANA	0.00	140.00	0.00	140.00	2004	4925.03	0.0	0.0
HONDURAS	0.00	38.00	0.00	25.00	2004	2800.00	0.0	-7.4
HONGKONG	0.00	42.19	0.00	49.15	2000	1349.24	0.0	-20.4
INDIA	0.00	129.99	0.00	100.49	2004	432.40	0.0	-27.9
INDONESIA	0.00	69.99	0.00	49.99	2004	2456.40	0.0	-28.4
IRELAND	912.44	0.43	584.02	0.14	2000	1742.40	-34.0	-58.1
ISRAEL	0.00	150.29	0.00	128.23	2004	2049.70	0.0	-14.7
ITALY	918.93	0.52	524.09	0.27	2000	1944.77	-34.0	-66.1
JAPAN	0.00	5.52	0.00	6.49	2000	3390.24	0.0	-15.0
KOREA REP.	0.00	53.41	0.00	23.47	2004	1770.47	0.0	-26.4
KUWAIT	0.00	175.00	0.00	115.00	2000	1800.00	0.0	0.0
MACAU	0.00	280.00	0.00	280.00	2004	1871.44	0.0	0.0
MALAYSIA	0.00	147.51	0.00	132.45	2004	1803.30	0.0	-10.1
MEXICO	0.00	50.00	0.00	44.77	2004	2532.00	0.0	-10.5
MOROCCO	0.00	45.00	0.00	34.00	2004	4452.35	0.0	-24.4
MYANMAR	0.00	165.00	0.00	165.00	2004	883.07	0.0	0.0
NEPAL	0.00	49.04	0.00	34.18	2004	1853.40	0.0	-24.3
NETHERLANDS	914.51	0.45	523.73	0.23	2000	1774.93	-34.0	-44.4
NEW ZEALAND	0.00	15.34	0.00	7.73	2000	1625.25	0.0	-30.3
NICARAGUA	0.00	49.42	0.00	59.95	2004	1000.00	0.0	-15.2
OMAN	0.00	424.47	0.00	261.90	2000	2788.40	0.0	-15.2
PANAMA	0.00	48.72	0.00	49.77	2004	0.00	0.0	0.0
PHILIPPINES	0.00	25.06	0.00	39.03	2004	1464.21	0.0	-58.9
POLAND	0.00	108.24	0.00	48.45	2000	1820.00	0.0	-24.0
PORTUGAL	454.12	0.71	410.30	0.38	2000	2029.51	-34.0	-66.5
ROMANIA	0.00	344.38	0.00	382.27	2004	1849.24	0.0	-10.0
SINGAPORE	0.00	27.00	0.00	10.00	2004	3000.00	0.0	-4.0
SLOVAK REP.	0.00	41.92	0.00	35.23	2000	3845.30	0.0	-16.0
SOUTH AFRICA	0.00	54.25	0.00	39.79	2000	922.95	0.0	-26.7
SPAIN	921.39	0.10	599.47	0.04	2000	1599.34	-34.0	-60.0
SRI LANKA	0.00	66.00	0.00	50.00	2004	756.47	0.0	-24.2
SWEDEN	0.00	50.15	0.00	38.00	2004	1666.07	0.0	-24.2
SWITZERLAND	0.00	125.34	0.00	72.47	2000	2139.00	-16.0	-36.3
THAILAND	87.29	40.00	43.45	32.93	2004	1792.11	-10.0	-45.1
TRINIDAD AND TOBAGO	0.00	115.00	0.00	115.00	2004	1746.47	0.0	0.0
TUNISIA	0.00	146.47	0.00	124.94	2004	2945.79	0.0	-20.1
TURKEY	0.00	165.04	0.00	149.53	2004	949.99	0.0	-10.0
UK	1032.97	0.44	646.77	0.28	2000	1815.21	-34.0	-41.7
URUGUAY	0.00	25.88	0.00	35.89	2004	822.34	0.0	35.2
USA	0.71	0.49	0.57	0.05	2000	1504.40	-19.7	0.0
VENEZUELA	0.00	58.37	0.00	40.52	2004	2020.00	0.0	-31.1
ZAMBIA	0.00	0.00	0.00	0.00	2004	216.13	0.0	0.0

Annex Table 13 - Poultry Meat - Aggregated Tariff Equivalents

	Base Rates	Bound Rates	Year of Production	Changes
	Specific Ad Valorem	Specific Ad Valorem	Implic. Prices	Specific Ad Valorem
	US\$	US\$	US\$	
ARGENTINA	0.00	37.93	0.00	29.96
AUSTRALIA	0.00	0.30	0.00	0.16
AUSTRIA	1166.63	0.00	284.36	0.00
BELGIUM	498.41	0.43	333.53	0.43
BENIN	0.00	79.00	0.00	79.00
BRAZIL	0.00	66.92	0.00	35.00
CANADA	0.00	310.00	0.00	310.00
CANADA	0.46	336.66	0.36	304.36
CHILE	0.00	35.00	0.00	25.00
CHINA P. REP.	0.00	50.02	0.00	39.46
COLOMBIA	0.00	125.95	0.00	112.91
CONGO	0.00	30.00	0.00	30.00
COSTA RICA	0.00	55.00	0.00	41.00
CUBA	0.00	40.00	0.00	40.00
CYPRUS	3143.59	40.67	2404.82	30.51
CZECH REP.	0.00	17.44	0.00	16.70
DEMARE	537.15	0.47	394.23	0.43
DOMINICAN REP.	0.00	60.00	0.00	60.00
EGYPT	0.00	79.20	0.00	59.52
EL SALVADOR	0.00	147.54	0.00	131.43
FIJI	0.00	40.00	0.00	40.00
FINLAND	0.00	243.93	0.00	333.61
FRANCE	556.01	0.29	346.23	0.18
GABON	0.00	260.00	0.00	360.00
GERMANY	511.45	0.00	327.68	0.00
GHANA	0.00	175.00	0.00	66.36
GREECE	516.44	0.22	333.56	0.16
GUATEMALA	0.00	271.45	0.00	242.39
GUYANA	0.00	160.00	0.00	146.06
HONDURAS	0.00	38.00	0.00	35.00
HUNGARY	0.00	50.11	0.00	37.67
INDIA	0.00	140.00	0.00	86.24
INDONESIA	0.00	98.27	0.00	40.05
IRELAND	534.03	0.74	340.25	0.47
ISRAEL	0.00	179.00	0.00	152.53
ITALY	526.94	0.06	341.30	0.06
JAPAN	0.00	12.66	0.00	10.73
KOREA REP.	0.00	77.56	0.00	49.73
KUWAIT	0.00	115.00	0.00	115.00
LAOS	0.00	280.00	0.00	280.00
MALAYSIA	0.00	73.78	0.00	66.36
MEXICO	1651.78	0.19	1409.40	0.15
MOROCCO	0.00	132.19	0.00	100.76
MYANMAR	0.00	145.00	0.00	145.00
NARINIA	0.00	150.00	0.00	83.00
NETHERLANDS	533.30	1.36	367.72	0.67
NEW ZEALAND	0.00	28.46	0.00	16.19
NICARAGUA	0.00	69.24	0.00	59.48
NORWAY	0.00	477.25	0.00	363.21
PAKISTAN	0.00	100.00	0.00	100.00
PHILIPPINES	0.00	96.92	0.00	39.94
POLAND	0.00	120.02	0.00	76.01
PORTUGAL	522.77	0.11	339.95	0.07
ROMANIA	0.00	140.00	0.00	86.00
SINGAPORE	0.00	27.00	0.00	10.00
SLOVAK REP.	0.00	17.44	0.00	16.70
SOUTH AFRICA	0.00	149.24	0.00	62.46
SPAIN	511.47	0.03	324.97	0.03
SWI LAND	0.00	66.00	0.00	50.00
SWITZERLAND	0.00	150.00	0.00	91.00
EMOYEN	4.94	109.49	4.37	47.95
THAILAND	137.33	58.22	67.55	30.97
TRINIDAD AND TOBAGO	0.00	134.29	0.00	110.18
TUNISIA	0.00	101.05	0.00	76.75
TURKEY	0.00	86.72	0.00	78.73
UK	531.91	0.24	347.64	0.15
URUGUAY	0.00	23.02	0.00	35.00
USA	124.03	0.02	93.29	0.01
VENEZUELA	0.00	50.14	0.00	30.15
YEMEN	0.00	0.00	0.00	0.00
YEMEN	0.00	0.00	0.00	0.00

Annex Table 14 - Tariff reductions in selected sugar importing and exporting countries

	Base 1986-88 ad valorem tariff (percent)		Committed tariff bound rate (percent)	
	Raw Sugar	White Sugar	Raw Sugar	White Sugar
AUSTRALIA	43	34	21	17
BANGLADESH	a	a	200	200
BRAZIL	55	85	35	35
CANADA	10	11	8	10
CHINA	100	100	26	26
EGYPT	30	30	20	20
EC	168 ^b	133 ^b	134 ^b	106 ^b
GUATEMALA	178	178	160	160
INDIA	a	a	150	150
JAPAN	339	376	288	320
MEXICO	173	173	156	156
PAKISTAN	a	a	150	150
S. AFRICA	124	124	105	105
THAILAND	104	104	24	24
TURKEY	150	150	135	135
USA	18 ^b	15 ^b	15 ^b	13 ^b

a Countries committed to a maximum rate.

b Tariff rate on above-quota imports.

Source: International Sugar Organisation calculation based on WTO schedules.

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3. "The Results of the Uruguay Round of Multilateral Trade Negotiations", GATT, Geneva, November 1994
4. "Trade Liberalization: Global Economic Implications" by Ian Goldin, Odin Kaudsen and Dominique van der Mensbrugghe, OECD and World Bank, 1993. See also "The Uruguay Round: An Assessment of Economy wide and Agricultural Reforms" by Ian Golding and Dominique van der Mensbrugghe, presented at The Uruguay Round and the Developing Economies, a World Bank Conference, January 1995.
5. For developing countries the reduction is 24 percent, on average, over the period 1995-2004, with a minimum of 5 percent per tariff line.
6. See Tangermann S. "An Assessment of the Uruguay Round Agreement on Agriculture" paper prepared for the Directorate for Food, Agriculture and Fisheries and the Trade Directorate of OECD, Stanford, 1994.
7. According to the World Bank/OECD simulations, the most important source of income gains from the liberalization of trade in goods is the elimination of quotas on industrial products, particularly MFA quotas, and the reduction in industrial tariffs. However the different estimates of income gains produced by the World Bank and the OECD depend on the version of the model used, i.e. with static or dynamic specifications.
8. The FAO "baseline" projections to the year 2000 extend the commodity coverage to other agricultural products, such as roots and tubers, pulses, citrus fruit and textile fibres. The Secretariat is considering the possibility (resource permitting) of conducting further studies of the impact of the Uruguay Round on selected agricultural commodities not included in the present study.
9. FAO-ISO "The World Sugar Market: Prospects for the Nineties", Rome 1992.

This publication provides an assessment of the impact of the Uruguay Round of multilateral trade negotiations on agricultural commodity markets to the year 2000.

The approach adopted was to rerun previous FAO agricultural commodity projections to take into account the changes in tariffs, export subsidies, import access and incomes likely to take place by the year 2000. After a brief review of the

Agreement on Agriculture, the publication focuses on the impact on selected agricultural commodity markets. The impact is then analysed by region, and a number of special issues are discussed. Some general conclusions are drawn. The report concludes with an annex giving an outline of the methodology used and some basic assumptions made in the study.

ISBN 92-5-103720-5



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V7600E/2/12 95/500